Sherwin Summit Rehabilitation Project

Environmental Assessment/Initial Study

On U.S. Highway 395 about 16 kilometers (10 miles) north of Bishop from KP R207.24 to R208.4 (PM R128.8/R129.5) in Inyo County to Tom's Place at KP R0.0/R16.6 (PM R0.0/R10.3) in Mono County

December 2003

General Information About This Document

What's in this document?

This document is an Environmental Assessment/Initial Study, which examines the potential environmental impacts of alternatives for the proposed project located in Inyo and Mono counties in California. The document describes why the project is being proposed, alternative methods for constructing the project, the existing environment that could be affected by the project and potential impacts from each of the alternatives.

What should you do?

- Please read this Environmental Assessment/Initial Study.
- We welcome your comments. Caltrans is proposing an opportunity for a public hearing. If you have any concerns regarding the proposed project, please send your written comments to Caltrans by the deadline. Please submit comments and/or requests for a public hearing via regular mail to Caltrans, Attn: Mike Donahue, Southern Sierra Environmental Analysis Branch, 2015 E. Shields Ave #100, Fresno, CA 93726; submit comments via email to Mike_Donahue@dot.ca.gov.
- Submit comments by the deadline: **January 30, 2004**.

What happens after this?

After comments are received from the public and reviewing agencies, Caltrans may (1) give environmental approval to the proposed project, (2) do additional environmental studies or (3) abandon the project. If the project were given environmental approval and funding were appropriated, Caltrans could design and construct all or part of the project.

For individuals with sensory disabilities, this document is available in Braille, large print, on audiocassette or computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Mike Donahue, Southern Sierra Branch, 2015 E. Shields Ave #100, Fresno, CA 93726; phone; (559) 243 8157 Voice, or use the California Relay Service TTY number, 1(800) 735-2929.

Improve U.S. Highway 395 from about 16 kilometers (10 miles) north of Bishop at KP R207.24 to R208.4 (PM R128.8/R129.5) in Inyo County to Tom's Place at KP R16.6 (R10.3) in Mono County by rehabilitating pavement, widening shoulders and the median, installing culvert extensions, improving existing chain-up areas, constructing a frontage road and relocating utilities

ENVIRONMENTAL ASSESSMENT/
INITIAL STUDY

Submitted Pursuant to: (State) Division 13, Public Resources Code
(Federal) 42 USC 4332(2)(C)

U.S. DEPARTMENT OF TRANSPORTATION
Federal Highway Administration, and
THE STATE OF CALIFORNIA
Department of Transportation

11/10/03
Date of Approval

Mike Donahue
Branch Chief,
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Central Region, Environmental Planning
California Department of Transportation

11/21/2003
Date of Approval

for
Gary N. Hamby
Division Administrator
Federal Highway Administration

Sherwin Summit Rehab, EA 09-269000 *i*

State of California
Department of Transportation

SCH Number:
9-INY-395-KP R207.24/R208.4 (PM 128.8/129.5)
MNO 395 KP R0.0/R16.6 (PM R0.0/R10.3)
EA 09-269000

Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to improve U.S. Highway 395 from about 16 kilometers (10 miles) north of Bishop at kilometer posts R207.24 to R208.4 (post miles R128.8/R129.5) in Inyo County to Tom's Place at kilometer post R16.6 (post mile R10.3) in Mono County. The purpose of the proposed project is to rehabilitate pavement, widen shoulders and the median, install culvert extensions, improve existing chain-up areas, construct a frontage road and relocate utilities along a 17.7-kilometer (11.0-mile) section of U.S. Highway 395.

Determination

Caltrans has prepared an Initial Study, and determined from this study that the proposed project would not have a significant effect on the environment for the following reasons:

- There would be no significant effects on social or educational facilities, floodplains or to any publicly owned park or recreation area. There would be no significant impacts on air and water quality. Noise levels would not increase near sensitive receptors. No hazardous waste sites are currently known to exist in the area. No endangered or threatened animals or plant species would be affected.
- Minor impacts to riparian areas, geological formations, and visual quality would be mitigated to a level of insignificance.
- Impacts to cultural resources would be mitigated under the provisions of the Caltrans, Federal Highway Administration and State Historic Preservation Officer Memorandum of Agreement. Recorded portions of all historic sites outside the Area of Potential Effects would be designated as Environmentally Sensitive Areas during construction. Archaeological monitoring would also be undertaken during construction as insurance against unanticipated effects upon sites.

_____ _____

Mike Donahue
Branch Chief, Southern Sierra Environmental Branch
Central Region Environmental Planning
California Department of Transportation

Date

Summary

The California Department of Transportation (Caltrans) proposes to improve U.S. Highway 395 from about 16 kilometers (10 miles) north of Bishop at kilometer posts R207.24 to R208.4 (post miles R128.8/R129.5) in Inyo County to Tom's Place at kilometer post R16.6 (post mile R10.3) in Mono County (see Figure 1-1). The purpose of the proposed project is to rehabilitate pavement, widen shoulders and the median, improve drainage, install median barrier guardrails and fences, improve existing chain-up areas, construct a frontage road and relocate utilities along a 17.7-kilometer (11.0-mile) section of U.S. Highway 395.

Purpose and Need. The proposed project would rehabilitate the road surface to relieve pavement cracking and wear and reduce maintenance costs, improve the road surface and bring the roadway up to current design standards.

Build Alternative. The project would widen the west shoulder to 1.5 meters (5 feet) and the east shoulder to 3.0 meters (10 feet) along a section of northbound U.S. Highway 395 in Inyo County from kilometer posts R207.24 to R208.4 (post miles R128.8 to R129.5) and in Mono County from kilometer posts R0.0 to 11.13 (post miles R0.0 to 6.92). The median would be widened to 4.2 meters (14 feet) and the shoulders to 3.0 meters (10 feet) from kilometer posts 11.13 to R15.9 (post miles 6.92 to R9.9) in Mono County.

The existing chain-up areas along the eastern shoulder of the northbound lanes at kilometer post R3.80 (post mile R2.4), kilometer post R5.0 (post mile R3.1), and kilometer post R10.20 (post mile R6.31) would be enlarged to accommodate 50 vehicles. In addition, lighting would be provided for the chain-up area at kilometer post R5.02 (post mile R3.12) from the generator at the sandhouse at kilometer post R5.0 (post mile R3.12). A new median crossover would be constructed at the north end of the vista point at kilometer post R6.73 (post mile R4.18).

The project also includes the construction of a frontage road along the western side of U.S. Highway 395 to connect Lower Rock Creek Road and Rock Creek Road between kilometer posts R14.8 and R16.6 (post miles R9.20 and R10.3). To construct the frontage road, utilities would have to be moved. No shoulder widening would occur between kilometer posts R15.9 and R16.5 (post miles R9.9 to R10.3), but the Rock Creek Road/U.S. Highway 395 intersection would be improved (see Figures 1-2 and 1-3).

Throughout the project limits, there a number of major cut and fill sections expected for the shoulder widening work and the curve corrections. Approximately 10% of the project area on the east side, and 6% of the project area on the west side of the northbound lanes in the Phase I section (kilometer posts R207.24/R208.4 (post miles R128.8/R129.5) in Inyo County to kilometer post 11.13 (post mile 6.92) in Mono County) may have major cuts and fills. The Phase II section (kilometer post 11.13 (post mile 6.92) to kilometer post R16.6 (post mile R10.3)) would have major cut and fills in 18% of the east side and 15% are of the west side of U.S. Highway 395. Impacts can be minimized in some areas by creating 2:1 or 3:1 slopes instead of the standard 4:1 slopes. In areas where the slopes would be greater than 4:1 installation of guardrail might be required.

No-Build Alternative. The No-Build Alternative would leave the road as it is. This alternative does not meet the project purpose and need to bring the highway up to current standards and improve the road surface.

Phasing. Because of funding constraints, the construction of the project is likely to be phased. This document will refer to Phase I and Phase II. Phase I stretches from the southern project limits to the beginning of the section that is not divided at kilometer post 11.13 (post mile 6.92) in Mono County. Phase II goes from kilometer post 11.13 (post mile 6.92) to the northern limits of the project at kilometer post R16.6 (post mile R10.3).

Environmental Consequences and Mitigation. Construction of this project would have minor impacts on riparian resources, cultural resources, and visual quality that would be mitigated as described in the following sections.

Waterways and Hydraulic Systems. The proposed project crosses the creek bed of Rock Creek. Because the total site disturbance exceeds 0.4 hectare (1 acre), a Storm Water Pollution Prevention Plan would be required. The Statewide National Pollutant Discharge Elimination System construction permit, California Department of Fish and Game's 1601 permit, and Caltrans standard specifications would provide sufficient controls to prevent any short-term impacts during construction. There are no wetlands in the project limits according to the U.S. Army Corps of Engineers guidelines. Temporary impacts to "other waters of the U.S." are anticipated with the Rock Creek culvert replacement, which would require a Nationwide 404 permit.

Biology. No direct or indirect impacts are expected to occur to any special-status species. The project would result in the permanent disturbance of approximately 87

hectares (215 acres) of previously undisturbed ground. Of the 87 hectares (215 acres), approximately 23.5 hectares (58 acres) of Shadscale/Sagebrush Scrub, 18.6 hectares (46 acres) of Pinyon/Jeffrey Woodland, and 27.5 hectares (68 acres) of Bitterbrush Scrub-dominated pumice flats would be affected. In addition, up to 17.4 hectares (43 acres) of Bitterbrush Scrub could be affected during the proposed construction of a frontage road connecting Crowley Lake Drive to Lower Rock Creek Road. Temporary disturbance of approximately 0.2 hectare (0.5 acre) of mixed riparian habitat could result during the replacement of the culverts at the Rock Creek/U.S.-Highway 395 highway crossing.

Caltrans standard duff provision would be applied to the proposed project area in efforts to mitigate temporary and permanent impacts to natural vegetation. Areas of disturbance would be kept to the minimal area necessary to construct the project. Areas of temporary disturbance would be re-planted using a combination of grass, shrubs, and tree species native to the area.

Cultural. Cultural resource studies have identified 32 archaeological sites within the Area of Potential Effects for the proposed project. There are no architectural resources or bridges located within the Area of Potential Effects. The only resource that has been previously found eligible for the National Register of Historic Places is site CA-MNO-2433/H. Seventeen sites are located within the Area of Potential Effects, but lie outside the Area of Direct Impact. For the purposes of this project, Caltrans considers these sites as eligible properties and therefore modified the project to avoid any adverse effects to these potential historic properties pursuant to 36 CFR 800.5(b). This will be done in future consultation with the State Historic Preservation Officer. After evaluating the remaining historic properties identified in the Area of Potential Effects, it was determined that the following archaeological sites are eligible for the National Register of Historic Places for their potential to contribute information about the history of the region: CA-MNO-2433/H, CA-MNO-3465, CA-MNO-3490.

The impacts of the proposed project to three of these historic properties would be mitigated under the terms of an accompanying Memorandum of Agreement, which calls for the establishment of Environmentally Sensitive Areas, as well as data recovery excavations with associated reporting, publication of findings, and public outreach. Recorded portions of the site outside the Area of Direct Impact would be designated as Environmental Sensitive Areas during construction. Archaeological monitoring would also be undertaken during construction as insurance against unanticipated effects upon the site.

Geology. The geological formation in the northern section of the project, the *Big Pumice Cut,* appears to be consistent in form to at least 30 meters (100 feet) perpendicular to the top of the cut face. Laying the slope back to a shallower angle would possibly produce several benefits in addition to the design benefit. A new cut face would reveal more of the detail of the events surrounding the explosion that left these deposits on the glacial till. A shallower cut face would also reduce the erosion and preserve the detail exposed for a much longer time.

Visual. With the implementation of the stated mitigation methods, the visual impacts of this project can be reduced and would not result in substantial changes in overall visual quality. The measures recommended would preserve and restore the scenic assets along this section of U.S. Highway 395. This would enable the traveler to continue to experience and appreciate the unique natural resources in the area, namely the Volcanic Tablelands, which are part of a 1,502-square-kilometer (580-square-mile) area covered by a series of volcanic ash flows from the eruption of the Long Valley caldera more than 700,000 years ago.

Coordination. Caltrans consulted with the U.S. Fish and Wildlife Service, California Department of Fish and Game, the U.S. Army Corps of Engineers, the Regional Water Quality Control Board, Native American representatives and the Native American Heritage Commission during the course of the environmental studies for the proposed project.

Caltrans participated in three public meetings to discuss the Sherwin Summit Rehabilitation project. Meetings were held on February 13, 2002 at Paradise Fire Station; February 27, 2002 at the Crowley Lake Community Center; and April 29, 2002 at Swall Meadows Fire Station. Most of the comments from participants at these meetings were about the proposed frontage road connecting Old Sherwin Grade Road (also referred to as Lower Rock Creek Road) and Rock Creek Road and removing the intersection of the former. Overall, the response from the meeting attendees was largely positive toward the project. Several attendees noted that they would like improvements to the existing intersection at Tom's Place.

Utilities. Between kilometer posts 12.55 and R16.57 (post miles R7.8 and R10.3), there would be potential utility relocations from the Los Angeles Department of Water and Power and Southern California Edison of up to 40 power poles.

Permits. It is anticipated that the following three permits would be required for this project: 1) a Streambed Alteration Agreement (1601 permit) from the California

Department of Fish and Game, 2) a 404 Nationwide Permit from the U.S. Army Corps of Engineers, if the culverts are to be replaced and/or upgraded, and 3) coordination with the Lahontan Regional Water Quality Control Board before any proposed highway construction.

A summary of the potential impacts from the build and no-build alternatives is provided in the following table.

Summary of Potential Impacts from Alternatives

Potential Impacts		No-Build Alternative	Build Alternative
Relocation	**Business Displacement**	No	No
	Housing Displacement	No	No
	Utility Service Relocation	No	Yes
Air Quality		No	No
Noise		No	No
Waterways and Hydrologic Systems		No	Temporary impacts to one “Other Waters of the U.S.”
Floodplain		No	No
Threatened or Endangered Species		No	No
Historical and Archaeological Sites		No	Three sites affected
Hazardous Waste Sites		No	No
Geology		No	No
Paleontology		No	No
Visual		No	Minor impacts to visual resources that can be mitigated
Construction		No	No

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List of Abbreviated Terms

ADI	Area of Direct Impact
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
FHWA	Federal Highway Administration
KP	Kilometer Post
NEPA	National Environmental Policy Act
PM	Post Mile
PPM	Parts Per Million
SHPO	State Historic Preservation Officer

Chapter 1 Purpose and Need

1.1 Introduction

In conjunction with the Federal Highway Administration (FHWA), the California Department of Transportation (Caltrans) proposes to improve a 17.7-kilometer (11-mile) segment of U.S. Highway 395. The proposed project begins about 16 kilometers (10 miles) north of Bishop at kilometer post R207.24 (post mile R128.8) in northern Inyo County, and ends at Tom's Place at kilometer post R16.6 (post mile R10.3) in southern Mono County (Figure 1-1). Caltrans plans to rehabilitate pavement, widen shoulders and medians, flatten slopes, improve drainage and replace the existing box culvert at Lower Rock Creek, bring several horizontal curves up to standard, improve existing chain-up areas (where motorists put chains on their vehicles in inclement weather), install median barrier guardrails and fences, construct a frontage road, and relocate utilities.

The project would widen the west shoulder to 1.5 meters (5 feet) and the east shoulder to 3.0 meters (10 feet) along a section of northbound U.S. Highway 395 in Inyo County from kilometer posts R207.24 to R208.4 (post miles R128.8 to R129.5) and in Mono County from kilometer posts R0.0 to 11.13 (post miles R0.0 to R6.92). The median width would be increased to 4.2 meters (14 feet) and the east and west shoulders of the section that is not divided would be widened to 3.0 meters (10 feet) from kilometer posts 11.13 to R15.9 (post miles 6.92 to R9.9) in Mono County. No shoulder widening would occur between kilometer posts R15.9 to R16.6 (post miles R9.9 to R10.3), but the Rock Creek Road/U.S. Highway 395 intersection would be improved (see Figures 1-2 and 1-3). Existing traffic signs located in construction areas would be moved to a similar location in the Caltrans right-of-way.

Five curves in the project area are not up to current design standards. The first one is from kilometer posts R5.44 to R6.02 (post miles R3.38 to R3.74), with a current radius of 548.6 meters (1,800 feet). The second curve is from kilometer posts 12.6 to 13.07 (post miles 7.8 to 8.12), with a radius of 487.7 meters (1,600 feet). The third curve is from kilometer posts 14.24 to 14.56 (post miles 8.85 to 9.05) with a radius of 426.7 meters (1,400 feet). The fourth curve, from kilometer posts 14.69 to 15.06 (post miles 9.13 to 9.36), has a radius of 426.7 meters (1,400 feet), and is located at the geological formation, the *Pumice Cut*. This geological feature is located on the east side of U.S. Highway 395 between kilometer posts 14.5 and 14.8 (post miles 9.02 to

9.22). The fifth curve is a compound curve: a 457.2-meter (1,500-foot) radius curve and a 1,219-meter (4,000-foot) radius curve from kilometer posts 15.19 to R15.45 (post miles 9.44 to R9.60). The standard radius for a design speed of 110 kilometers per hour (68 miles per hour) is 600 meters (1,968.5 feet).

Improvements to existing chain-up areas would consist of enlarging three chain-up areas along the eastern shoulder of the northbound lanes at kilometer posts R3.8, R5.0, and R10.2 (post miles R2.34, R3.1, and R6.31) in Mono County to accommodate up to 50 vehicles. Lighting installation would be included in the improvements at the chain-up areas located at kilometer post R5.0 (post mile R3.1), and kilometer post R10.2 (post mile R6.31), if feasible. In addition, the north end of the vista point could be extended as far north as kilometer post R6.73 (post mile R4.18) to facilitate use as an additional chain-up area. Also, Caltrans would potentially pave a median crossover in this location.

Throughout the project limits, there a number of major cut and fill sections expected for the shoulder widening work and the curve corrections. Approximately 10% of the project area on the east side, and 6% of the project area on the west side of the northbound lanes in the Phase I section (kilometer posts R207.24/R208.4 (post miles R128.8/R129.5) in Inyo County to kilometer post 11.13 (post mile 6.92) in Mono County) may have major cuts and fills. The Phase II section (kilometer post 11.13 (post mile 6.92) to kilometer post R16.6 (post mile R10.3)) would have major cut and fills in 18% of the east side and 15% are of the west side of U.S. Highway 395. Impacts can be minimized in some areas by creating 2:1 or 3:1 slopes instead of the standard 4:1 slopes. In areas where the slopes would be greater than 4:1 installation of guardrail might be required.

The project would also extend Crowley Lake Drive from Rock Creek Road to the south, connecting with Lower Rock Creek Road. This work would include utility relocation, extension/installation of culverts, and fence removal and relocation. The road would follow the existing paved road (Crowley Lake Drive) initially and would be designed with two 3.6-meter (12-foot) lanes and 2.4-meter (8-foot) shoulders and would be roughly 1,700 meters (one mile) long. The frontage road would be turned over to Mono County after completion (see Figure 1-3).

1.2 Project Background

U.S. Highway 395 is a high emphasis route in the Interregional Road System. It is a major element of a transportation corridor connecting the eastern Sierra region (Inyo, Mono, and Alpine counties) and western-central Nevada to the Southern California region. This transportation corridor has been identified in previous California planning studies as one of five major recreational corridors serving all of Southern California and one of 11 major regional transportation corridors in California. In addition, U.S. Highway 395 carries a State Scenic Highway designation throughout the project limits.

As a transportation corridor, it serves several purposes. The highway corridor is vital for the economy of the eastern Sierra region for the shipment of goods and materials. The region imports virtually all of its food, clothing, and other goods. This corridor also sees major recreational use, with more than 7 million visitor-days of recreation generated annually in the eastern High Sierra.

An Origination and Destination Travel Study conducted in 2000 for U.S. Highway 395 through Inyo and Mono counties indicated that 68 percent of the non-commercial traffic was recreational. The study also indicated 36 percent of all vehicles coming into the eastern Sierra region originated in Southern California, with an average personal vehicle occupancy of 2.5 persons per vehicle. Trucks (trucks, RVs, and buses) composed 16.6 percent of the traffic volume.

In addition to being listed in the Interregional Road System as a high emphasis route, U.S. Highway 395 has been designated a “larger truck” route by the federal Surface Transportation Assistance Act and included in the Subsystem of Highways for the Movement of Extra Legal Permit Loads System.

The speed limit throughout the project area is 105 kilometers per hour (65 miles per hour).

There is little development along the proposed project limits because most of the land is owned by the Inyo National Forest and Mono County. The community of Tom’s Place is located at the northern end of the project limits.

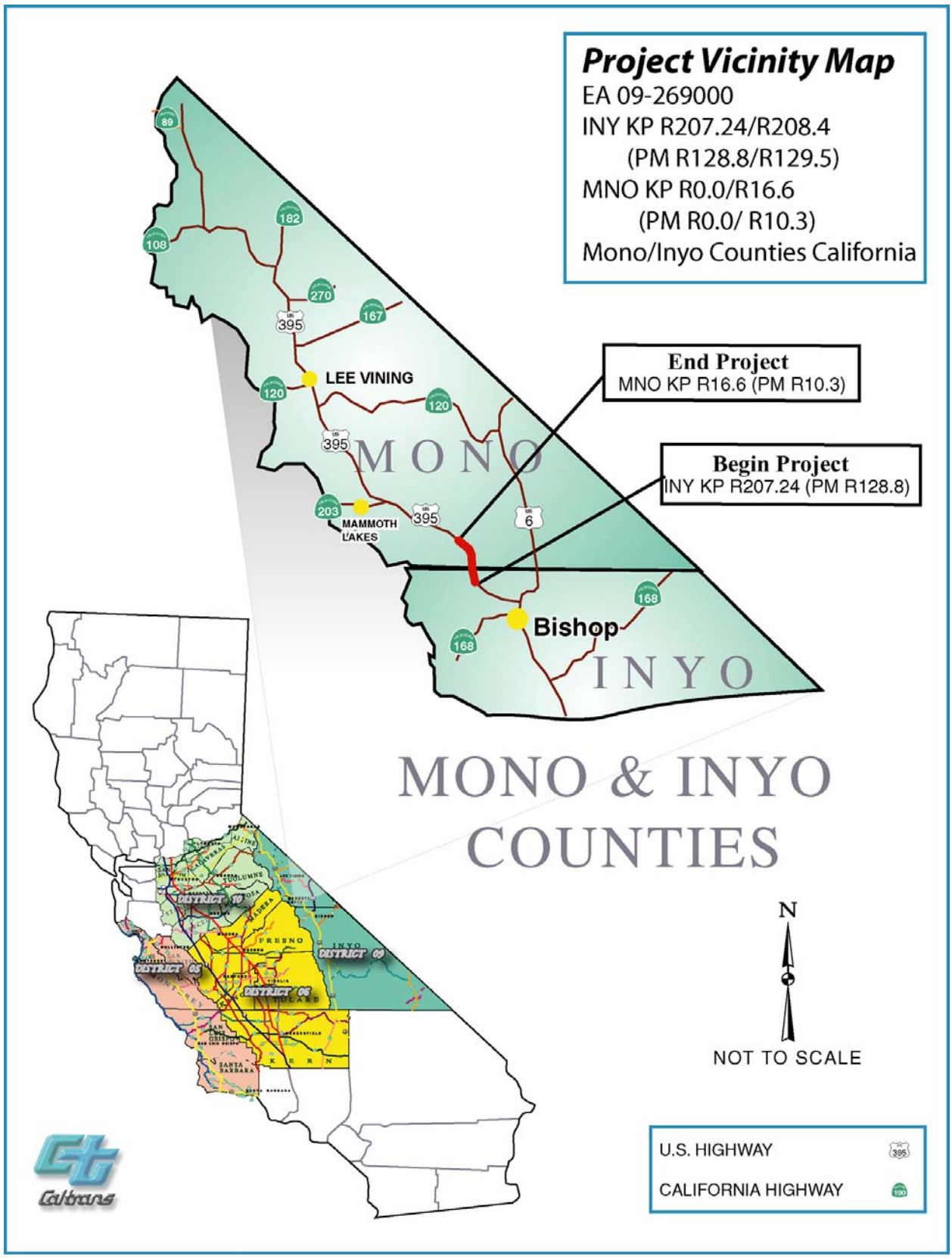

Figure 1-1 Project Vicinity Map

Project Location Map

Sherwin Summit Rehab Project

INY KP R207.24/R208.4 (PM R128.8/R129.5)

MNO KP R0.0/R16.6 (PM R0.0/R10.3)

EA 09-269000

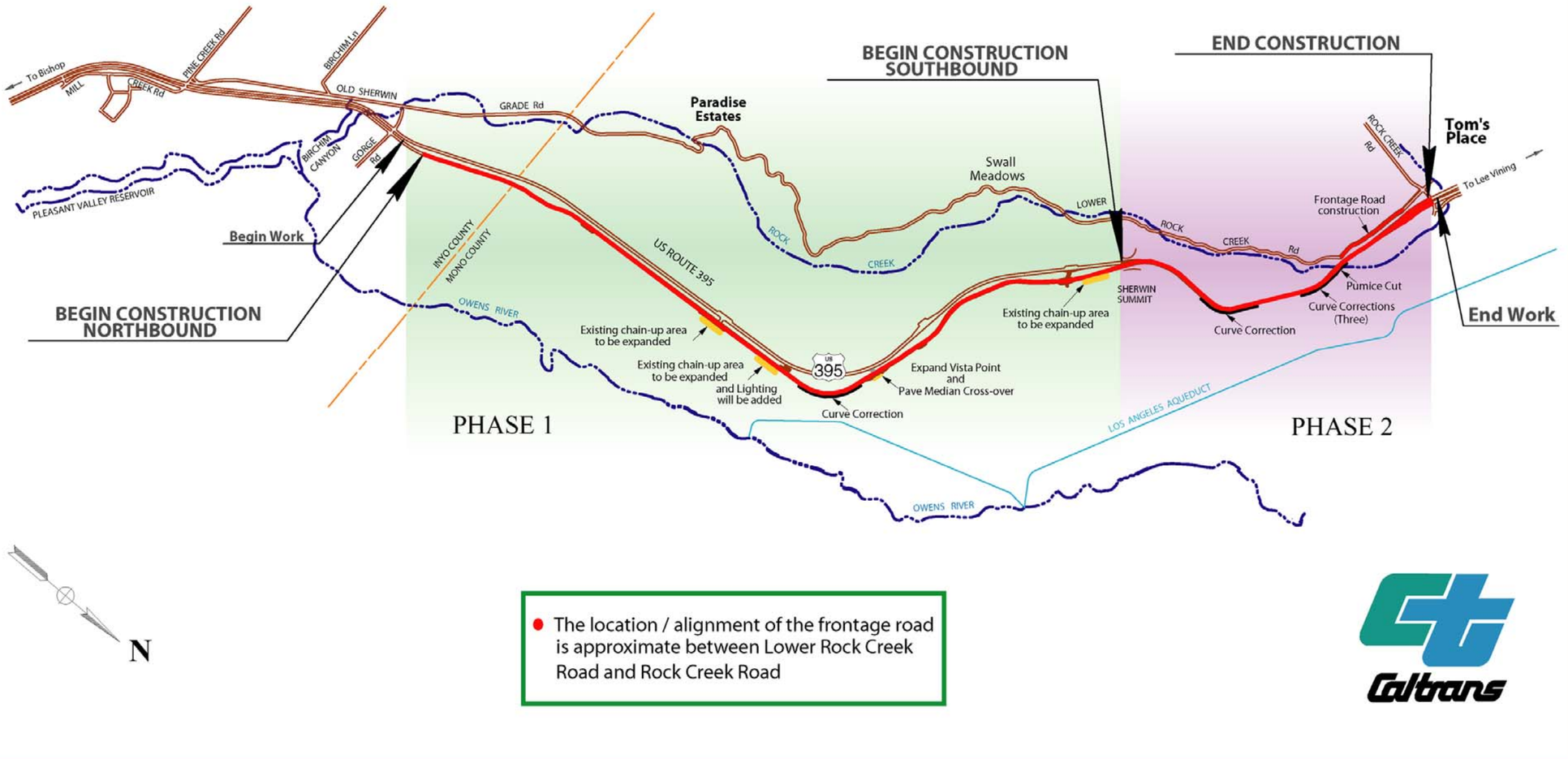

Figure 1-2 Project Location Map

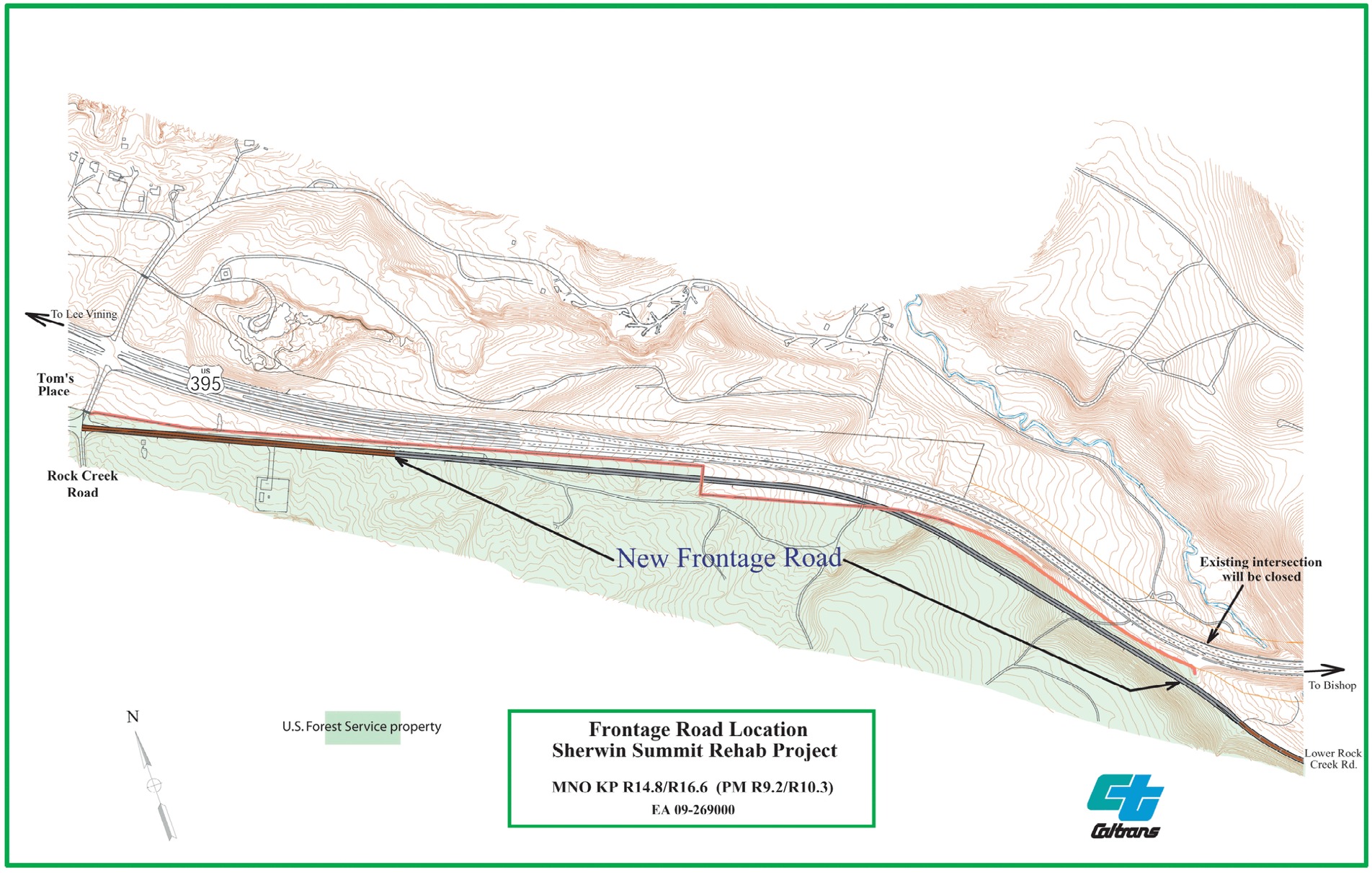

Figure 1-3 Frontage Road Location Map

1.3 Project Description

Within the project limits, the existing U.S. Highway 395 is an expressway with four 3.6-meter (12-foot) lanes and 1.2-meter (4-foot) to 3.1-meter (10-foot) paved shoulders, which do not meet the current design standards of 3-meter (10-foot) and 1.5 meter (5-foot) shoulders. See Figures 1-4 and 1-5 for typical cross-sections of the existing roadway. Median widths in the project limits vary from 60 meters (200 feet) at the southern end to 1.2 meters (4 feet) in the section that is not divided.

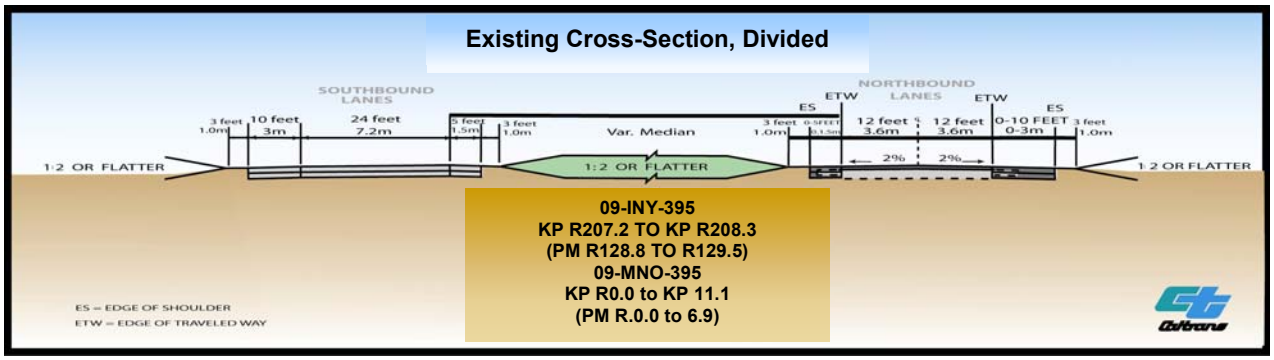

Figure 1-4 Existing Cross-Section, Divided

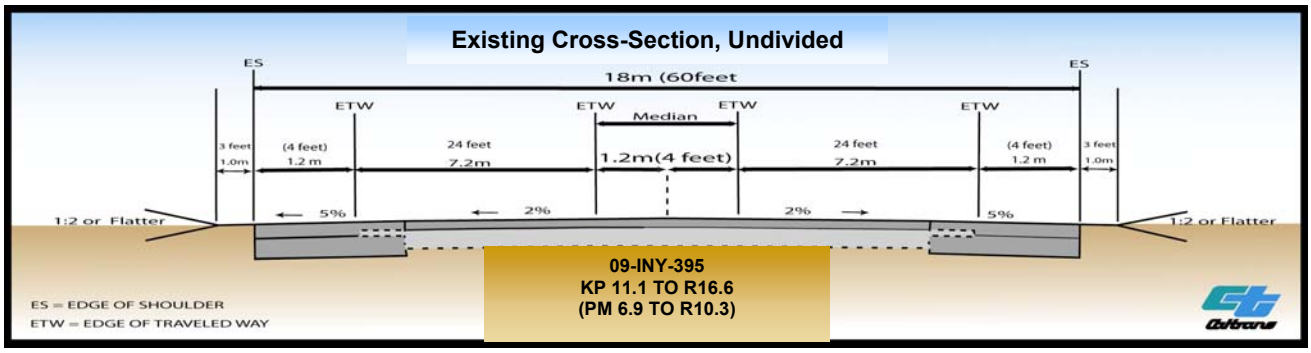

Figure 1-5 Existing Cross-Section, Undivided

1.3.1 Traffic Data

Traffic data is presented in Table 1.1. The existing Annual Average Daily Traffic volume is 5,300 vehicles per day for the year 2000, with the peak month being almost 53 percent higher (8,100 vehicles per day). The 10-year and the 20-year growth rates from the construction year were determined to be 0.5 percent.

Table 1.1 Traffic Data for U.S. Highway 395

Traffic Data Studied	2000	2016	2026
Annual Average Daily Traffic (number of vehicles)	5,300	5,740	6,030
Peak Hour	770		
Peak Month Average Daily Traffic	8,100	-	-
Trucks	9%	-	-
Growth per Year	-	0.5%	0.5%

Vehicles have been surveyed ranging in speed from 72 kilometers per hour (45 miles per hour) to 129 kilometers per hour (80 miles per hour). The current speed limit is 105 kilometers per hour (65 miles per hour).

1.3.2 Safety Analysis

Table 1.2 shows accident data for U.S. Highway 395. Most of the alignment for this section of U.S. Highway 395 is a divided highway. Therefore, the accident data was analyzed separately for the northbound lanes because no work would be done on the southbound lanes in segment one. The first segment for the northbound lanes ends at kilometer post 11.13 (post mile 6.92) in Mono County, where the separation between the northbound and southbound lanes ends. The second segment goes from this undivided section to the northern project limits at kilometer post R16.6 (post mile R10.3) and includes the northbound and southbound lanes.

The Traffic Accident and Survey Analysis System and Table 1.2 show 31 recorded accidents for the northbound project limits on this portion of U.S. Highway 395 for the most recent three-year period ending April 30, 2002. This resulted in a total accident rate of 1.32, more than twice the statewide average of 0.54 for a similar roadway. One fatal accident resulted in an actual fatal rate of 0.043, above the statewide average rate of 0.014. Of the total collisions, 32 percent (10) resulted in 12 injuries with a total *Fatal & Injury* rate of 0.47, twice the statewide average of 0.24.

Solo vehicles were involved in 94 percent (29) of the accidents; about half of them (48 percent or 15) happened on an icy or wet roadway. Primary collision factors were: unsafe speed, 39 percent (12); improper turn, 23 percent (7); hitting deer, 13

percent (4); falling asleep, 13 percent (4); and influence of alcohol, unsafe lane change and vehicle fire, 3 percent (one each).

Table 1.2 Accident Rates

May 1, 1999 – April 30, 2002

(Expressed in million vehicle miles traveled)

Portion of U.S. Highway 395	Actual			Statewide Average		
Segment 1 Northbound only	**Fatal**	**Fatal & Injury**	**Total***	**Fatal**	**Fatal & Injury**	**Total***
Percentage	0.043	0.47	1.32	0.014	0.24	0.54
Accidents	1	10	31	-	-	-
Segment 2 Undivided Highway	**Fatal**	**Fatal & Injury**	**Total***	**Fatal**	**Fatal & Injury**	**Total***
Percentage	0.0	0.42	0.84	0.020	0.48	1.19
Accidents	0	9	18	-	-	-

* Total includes “property damage only” accidents

The proposed project would contribute to a reduction in the accident rate in Segment 1, with installation of wider shoulders with rumble strips to help decrease single-vehicle run-off-road accidents, creating more room to maneuver and alert inattentive drivers in time to correct steering. Clear recovery zone improvements would help reduce accidents and decrease their severity. The number of ice- and snow-related collisions on the curve between kilometer posts 7.96 to 8.34 (post miles 4.95 to 5.18) called for a new chain-up area. In addition, a new road surface may also reduce collisions because it would be more uniform and smooth, with better friction and better delineation provided by the contrasting color of new pavement.

For the second segment, starting at kilometer post 11.13 (post mile 6.92), there were 18 recorded accidents on this portion of the northbound and southbound lanes of U.S. Highway 395 for the most recent three-year period ending April 30, 2002. This resulted in a total accident rate of 0.84, below the statewide average of 1.19 for a similar roadway. There were no fatal accidents during this timeframe, but 50 percent (9) of the accidents resulted in injuries with a total *Fatal & Injury* accident rate of 0.42, just below the average rate of 0.48.

Solo vehicles were involved in 67 percent (12) of the accidents, about one third of them (6) on an icy or wet roadway surface. Six (33 percent) of the total accidents were overturn collisions; five (28 percent) were hit-object collisions; two (11 percent) were head-on collisions; two (11 percent) were rear-end collisions; and there was one each of a sideswipe, broadside and vehicle fire. Primary collision factors were: unsafe speed, 39 percent (7); improper turn, 17 percent (3); influence of alcohol, 17 percent (3); falling asleep, 11 percent (2); and unsafe lane change, gust of wind, vehicle fire, 6 percent (one each).

The proposed project would rehabilitate the road surface to relieve cracking and wear and reduce maintenance costs, improve the road surface, and bring the highway up to current design standards. All features of the proposed highway would meet the current standards for a design speed of 110 kilometers per hour (70 miles per hour). Rehabilitation is needed based on high deflections and surface cracking caused by heavy loads day in and day out.

Improvements to three existing chain-up areas would consist of installing lights (if feasible) and enlarging the eastern shoulder of the northbound lanes to accommodate vehicles. A new median crossover would be constructed at the north end of the vista point. Existing traffic signs located in construction areas would be moved to a similar location in the Caltrans right-of-way.

1.3.3 New Frontage Road

Closing of the current intersection of Lower Rock Creek Road/U.S. Highway 395, constructing the frontage road and moving traffic to the existing intersection of Rock Creek Road/Crowley Lake Road would improve safety because the current intersection is in an area with an increased accident concentration. In addition, constructing the frontage road and closing the Lower Rock Creek intersection would reduce potential conflict points. The road would follow the existing paved road (Crowley Lake Drive) initially, continue south and meet with the existing Lower Rock Creek Road just west of the current intersection of Lower Rock Creek Road and U.S. Highway 395 (see Figure 1-3). The frontage road would be designed with two 3.6-meter (12-foot) lanes and 2.4-meter (8-foot) shoulders and would be roughly 1,700 meters (one mile) long. The frontage road would be turned over to Mono County after completion.

Constructing the frontage road would provide an alternate route for bicycles and other slower vehicles to travel continuously from Crowley Lake Drive to the foot of

Sherwin Grade and beyond without having to get near the high-speed traffic on the four-lane expressway. Recreational trips would be safer by eliminating the speed differences between slower-moving recreational vehicles and fast-moving traffic. The average daily traffic on Lower Rock Creek Road is estimated to be around 200 vehicles per day. Traffic impacts to the Rock Creek Road/Crowley Lake Drive intersection are expected to be negligible.

Chapter 2 Alternatives

2.1 Project Alternatives

2.1.1 No-Build Alternative

The No-Build Alternative would leave the roadway as it is. This alternative was examined and rejected because relief from existing roadway deficiencies would not be achieved. This alternative would not address the need for rehabilitation of the road surface or bringing the road up to current design standards.

2.1.2 Build Alternative

The proposed project would improve a 17-kilometer (11-mile) segment of U.S. Highway 395, beginning about 16 kilometers (10 miles) north of Bishop at kilometer post R207.24 (post mile R128.8) in northern Inyo County and ending at Tom's Place at kilometer post R16.6 (post mile R10.3) in southern Mono County (Figures 1-1 and 1-2). Caltrans plans to rehabilitate pavement, widen shoulders and medians, flatten slopes, improve drainage and replace the existing box culvert at Lower Rock Creek, bring several horizontal curves up to standard, improve existing chain-up areas, install median barrier guardrails and fences, construct a frontage road, improve the Rock Creek/U.S. Highway 395 intersection and relocate utilities.

The total project cost (right-of-way and construction cost) of the proposed project is estimated to be $24,400,000 (escalated for fiscal year 2007/08). Because of funding constraints, the construction of the project would likely be phased. Phase I stretches from the southern project limits to the beginning of the undivided section at kilometer post 11.13 (post mile 6.92) in Mono County. Phase II goes from kilometer post 11.13 (post mile 6.92) to the northern limits of the project at kilometer post R16.6 (post mile R10.3).

2.1.2.1 Phase 1

Phase I, from kilometer post R207.24 (post mile R128.8) in Inyo County to kilometer post 11.13 (post mile 6.92) in Mono County, encompasses the following work. Phase I would widen the west shoulder to 1.5 meters (5 feet) and the east shoulder to 3.0 meters (10 feet) along this section of northbound U.S. Highway 395 (see Figure 2-1). Where feasible, 1:4 side slopes would be incorporated, while the natural slopes would

be mimicked as closely as possible. Approval from the District Landscape Architect would be required for side slopes steeper than 1:4. In the Phase I project area, there is one curve from kilometer posts R5.44 to R6.02 (post miles R3.38 to R3.74) with a current radius of 548.6 meters (1,800 feet), which would be brought up to current design standards. The standard radius for a design speed of 110 kilometers per hour (70 miles per hour) is 600 meters (1,968.5 feet).

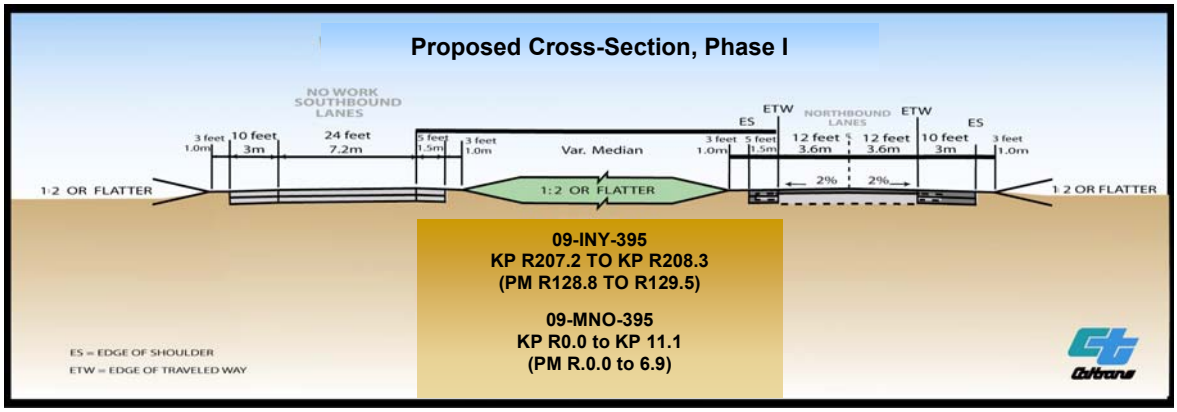

Figure 2-1 Proposed Cross-Section, Phase I

In addition, improvements to existing chain-up areas would consist of enlarging three chain-up areas along the eastern shoulder of the northbound lanes at kilometer posts R3.8, R5.0, and R10.2 (post miles R2.4, R3.1, and R6.31) to accommodate up to 50 vehicles. Lighting installation would be included in the improvements at the chain-up areas located at kilometer post R5.0 (post mile R3.1), and kilometer post R10.2 (post mile R6.31). In addition, the north end of the vista point could be extended as far north as kilometer post R6.73 (post mile R4.18) to facilitate use as an additional chain-up area. Caltrans would potentially pave a median crossover in this location.

The cost for this phase of the proposed project is estimated to be $12,000,000 (escalated for fiscal year 2007/08).

2.1.2.2 Phase II

Phase II, from kilometer post 11.13 (post mile 6.92) to kilometer post R16.6 (post mile R10.3) in Mono County would encompass the following work. The median width would be increased to 4.2 meters (14 feet), and the east and west shoulders of the undivided section would be widened to 3.0 meters (10 feet) from kilometer posts 11.13 to R15.9 (post miles 6.92 to R9.9) (see Figure 2-2). No shoulder widening would occur between kilometer posts R15.9 to R16.6 (post miles R9.9 to R10.3)

because the widths already comply with current standards, but the Rock Creek/U.S. Highway 395 intersection would be improved.

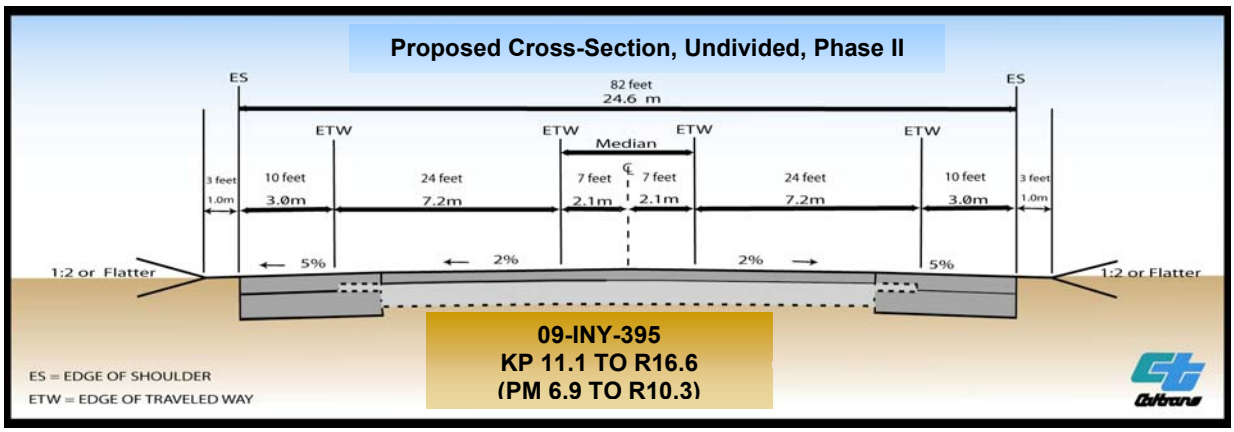

Figure 2-2 Proposed Cross-Section, Undivided, Phase II

Four curves in the Phase II project area are not up to current design standards. The first, from kilometer posts 12.6 to 13.07 (post miles 7.8 to 8.12), has a radius of 487.7 meters (1,600 feet). The second curve, from kilometer posts 14.24 to 14.56 (post miles 8.85 to 9.05), has a radius of 426.7 meters (1,400 feet). The third curve at kilometer posts 14.69 to 15.06 (post miles 9.13 to 9.36), with a radius of 426.7 meters (1,400 feet), is located at the geological formation, the *Pumice Cut*. This geological feature is located on the east side of U.S. Highway 395 between kilometer posts 14.5 and 14.8 (post miles 9.02 to 9.22). The fourth curve is a compound curve: a 457.2-meter (1,500-foot) radius curve and a 1,219-meter (4,000-foot) radius curve from kilometer posts 15.19 to R15.45 (post miles 9.44 to R9.60). The standard radius for a design speed of 110 km/h (70 mph) is 600 meters (1,968.5 feet).

This phase also includes an extension of Crowley Lake Drive from Rock Creek Road connecting with Lower Rock Creek Road to the south between kilometer posts R14.8 and R16.6 (post miles R9.20 and R10.3). This work would include utility relocation, extension/installation of culverts, and fence removal and relocation (see Figure 2-3 for cross-section).

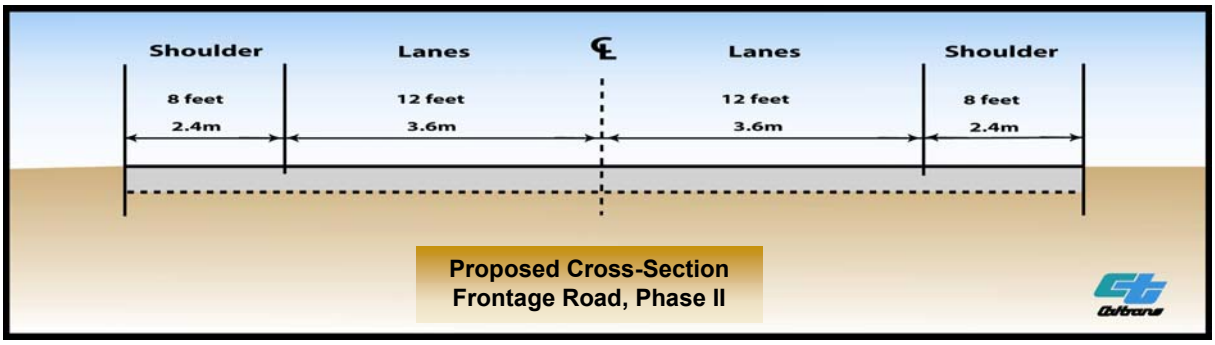

Figure 2-3 Proposed Cross-Section, Frontage Road, Phase II

Construction for Phase I would occur in the 2007/2008 fiscal year, while construction for Phase II is anticipated for the 2013/2014 fiscal year.

The cost for Phase II of the proposed project was estimated to be $12,400,000 (escalated for fiscal year 2013/14).

Chapter 3 Affected Environment, Environmental Consequences, and Mitigation

This chapter describes the existing environmental setting for the project study area. The "project study area" encompasses the geographic limits of the proposed project's potential direct and indirect effects, particularly for visual, biological, and cultural resources.

3.1 Land Use - Right-of-Way Needs

3.1.1 Affected Environment

The project site is located within the Eastern Sierra Nevada region of the Great Basin Floristic Province. Elevation ranges from the valley floor level of approximately 1,372 meters (4,500 feet) at the base of Sherwin Grade to approximately 2,164 meters (7,100 feet) at the northern end of the project. The southern end of the project is dominated by a Sagebrush Scrub plant community. Going north, as elevation increases, a Pinyon/Jeffrey Pine Woodland zone is the next transitional plant community dominated by Pinyon pines and sagebrush. Approaching the Sherwin Grade summit, occasional Jeffrey pines are interspersed among the dominant Pinyon pine forest. Beyond the summit of Sherwin Grade (along the existing U.S. Highway 395 highway alignment), the trees give way to a Bitterbrush/Sagebrush Shrub community on the open pumice flats found along U.S. Highway 395. This shrub community continues north toward the highway crossing at Rock Creek and ultimately to the northern project limit at kilometer post R16.6 (post mile R10.3).

Nearly all the adjacent land is classified as open-space and is owned by the Inyo National Forest and Mono County. At the northern end of the project limits, there are a number of private properties in the Tom's Place area that would not be affected by this project.

3.1.2 Impacts

The build alternative would use the existing right-of-way, which ranges from 30 to 91.4 meters (100 feet to 300 feet) wide. An additional 79.9 hectares (197 acres) of

public land from the Inyo National Forest and Mono County is needed for the build alternative. No homes or businesses would be affected by either alternative (see also Appendix I for the Draft Relocation Impact Report). Right-of-way needed for the construction of the frontage road would be relinquished to Mono County after completion of this project.

3.1.3 Mitigation

No mitigation measures would be necessary.

3.2 Social and Economic

Environmental Justice. Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, signed by President Clinton on February 11, 1994, directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law.

The proposed project is located within a rural environment. There are no communities, residents, or structures within the project limits that would be affected. No minority or low-income populations have been identified within the project limits that would be adversely affected by the proposed project as specifically required by Executive Order 12898 regarding environmental justice.

In addition to complying with the requirements of Executive Order 12898 regarding environmental justice, Caltrans is also committed to Title VI of the Civil Rights Act. This act provides that no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance. See Appendix C for a copy of the Caltrans Title VI policy statement.

3.3 Waterways and Hydrologic Systems, Water Quality

3.3.1 Affected Environment

The proposed project crosses Rock Creek at kilometer post 14.9 (post mile 9.3). There are no wetlands in the project area. However, there is some riparian vegetation in the area where the project calls for replacement of the existing culvert. The existing

riparian zones are a diverse ecosystem made up of plant, animal, and aquatic communities whose presence can be attributed to factors that are stream-induced or stream-related.

3.3.2 Impacts

At Rock Creek, construction activities during the replacement of the culvert may create short-term impacts from soil erosion or equipment intrusion. Measures would be required to protect the water quality of the creek and the existing riparian vegetation found along the creek. In areas where riparian impacts are unavoidable, project design measures would be used to keep project impacts to a minimum. Temporary disturbance of approximately 0.2 hectare (0.5 acre) of mixed riparian habitat could occur during the replacement of the culvert at the Rock Creek/U.S. Highway 395 crossing. In addition, temporary impacts of less than 0.2 hectare (0.5 acre) to "other waters of the U.S." would occur during the culvert replacement at Rock Creek.

Water quality impacts from sediment moving downstream could occur if improper construction techniques are used when upgrading the drainage structures. Caltrans specifications and storm water policies when used in conjunction with permits and requirements of the California Department of Fish and Game and the U.S. Army Corps of Engineers would eliminate or minimize potential impacts so they would not affect water quality. However, the multitude of controls must be properly enforced throughout all construction activities.

3.3.3 Mitigation

During the design and construction stages of replacing the culvert at Rock Creek, close coordination with the Inyo National Forest, the California Department of Fish and Game and Lahontan Regional Water Quality Control Board would be required. The proposed work would require measures to protect the water quality of the creek and the existing riparian vegetation found along the creek. In areas where riparian impacts are unavoidable, project design measures would be used to keep project impacts to a minimum. Throughout the project, Caltrans Best Management Practices would be followed and implemented to ensure compliance with state and federal water quality regulations.

Because the total site disturbance exceeds 0.4 hectares (1 acre), a Storm Water Pollution Prevention Plan would be required.

All newly constructed cross drainage facilities would be designed to carry 100-year flow.

The Statewide National Pollutant Discharge Elimination System construction permit, California Department of Fish and Game's 1601 permit, and the Caltrans standard specifications would provide sufficient controls to prevent any short-term impacts during construction. Any new culvert design would include measures to improve and facilitate fish passage. In addition, a 404 Nationwide Permit for temporary impacts to "other waters of the U.S." from the U.S. Army Corps of Engineers is required.

The rock slope protection to be placed for the new culverts would require clean or washed material to minimize adding sediment to the creeks. After the old culverts are removed, the creek slopes would be re-vegetated and re-contoured to conform to the existing banks.

The culvert would be constructed, maintained, and placed in operation, so that sufficient water shall be allowed to pass between downstream and upstream locations to maintain aquatic life in as near-original conditions as would be maintained without such a structure in the creek.

When work in the creek is unavoidable, the entire stream flow would be diverted around the work area by a temporary barrier and/or diversion. Channel banks or barriers would not be made of earth or other substances subject to erosion unless first enclosed by sheet piling, rock riprap, or other protective material. The enclosure and the supportive material would be removed when the work is completed. The removal would normally proceed from downstream in an upstream direction.

Silty/turbid water would not be discharged into the stream. Such water would be settled, filtered, or otherwise treated before discharge. This requires that silt filter barrier material, sedimentation basins, or sediment curtains be placed so silt or other harmful materials are not allowed to pass downstream during project activities.

Construction of the new culvert and removal of the existing culvert would be completed without deposit of construction material, pollutants, or debris into the creek. Water containing mud, silt, or other pollutants from aggregate washing or any other construction activity would not be allowed to enter the stream or to be placed in locations that may be subjected to high storm flows. Areas of disturbed soils that slope toward a stream, such as roadway shoulder areas, would be stabilized to reduce erosion potential. Where possible, stabilization would include the re-planting of

stripped or exposed areas with vegetation native to the area. The use of native seed and straw would be acceptable in these areas. Where suitable vegetation cannot reasonably be expected to become established, materials that will not erode may be used for such stabilization.

Spoil sites would not be located within the creeks, where spoil could be washed back into a stream, or where it would cover aquatic or riparian vegetation. Any materials placed in seasonally dry portions of a creek that could be washed downstream or could be harmful to aquatic life would be removed from the project site before inundation by high flows.

Staging/storage areas for equipment and materials would be located outside of the creeks or their associated riparian habitat areas. Any equipment or vehicles driven and/or operated within or adjacent to the creeks shall be checked and maintained daily to prevent leaks of materials that if introduced to water could be harmful to aquatic life. No equipment maintenance would be done within or near any creek channel or waters where petroleum products or other pollutants from the equipment may enter these areas under any flow.

No debris, soil, silt, sand bark, slash, sawdust, rubbish, cement or concrete or related washings, oil or petroleum products, or other organic or earthen material from any maintenance, construction, or associated activity of whatever nature would be allowed to enter into or be placed where it may be washed by rainfall or runoff into waters. When operations are completed, any excess materials or debris would be removed from the work area. No rubbish shall be deposited within 50 meters (150 feet) of the high water mark.

The clean up of all pollution spills would begin immediately. The operator would notify Caltrans immediately of any spills and would consult with Caltrans regarding clean-up procedures and requirements.

Compliance with the above regulations and standards would protect water quality in the project area.

3.4 Floodplain

Executive Order 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the

only practicable alternative. The Federal Highway Administration requirements for compliance are outlined in 23 CFR 650 subpart A.

The 100-year floodplain is defined as "the area subject to flooding by the flood or tide having a one percent chance of being exceeded in any given year." An encroachment is defined as "an action within the limits of the 100-year floodplain."

3.4.1 Affected Environment

A Floodplain Evaluation Report (see Appendix E) and Location Hydraulic Studies (see Appendix F) were completed for the proposed project. The project is located at elevations ranging from 1,372 meters (4,500 feet) to 2,160 meters (7,100 feet). The average annual precipitation in the area ranges from 250 to 380 millimeters (10 to 15 inches), occurring as snowfall and rainfall.

Rock Creek is a perennial stream that flows under the highway at about kilometer post 14.2 (post mile 9.2). The existing drainage structure is a 1.5-meter by 1.5-meter (5-foot by 5-foot) reinforced concrete box culvert with a capacity of 8.5 cubic meters per second (300 cubic feet per second). The drainage basin above the highway at this point is about 114 square kilometers (44 square miles). The Rock Creek drainage basin extends up to an elevation of over 4,000 meters (13,000 feet). The estimated 100-year flow for Rock Creek at this location is less than 8.5 cubic meters per second (300 cubic feet per second).

The other drainage culverts receive flow from minor drainage basins and do not flow year around.

3.4.2 Impacts

All drainage facilities would be designed to convey the 100-year flow. The proposed action would not have the effect of raising the base (100-year) floodwater surface elevation within the project and is not considered a major encroachment on any floodplain. New drainage facilities installed for the new frontage road would be designed to convey the estimated 100-year flows.

3.4.3 Mitigation

No mitigation measures would be necessary.

3.5 Threatened and Endangered Species

Caltrans biologists conducted biological evaluations of the proposed project area during spring, summer, and fall of 2000 and 2001. The California Natural Diversity Database, as well as standard field guides and texts on sensitive and non-sensitive biological resources, were searched before field surveys. The USGS 7.5-minute quads for the project area are Rovana, Casa Diablo Mt and Tom's Place.

3.5.1 Affected Environment

The study area varies in topography from the valley floor (at the base of Sherwin Grade) to the higher elevation of the northern end of the project. The project is located at the extreme southern end of the Long Valley Caldera containing the Crowley Lake drainage system. The existing biological communities do not show a great diversity in part because of nutrient-poor soils and a general lack of available water in the project area. The ground beneath the surface is composed of a variety of bedrock materials, which have been subjected to weathering by water and ice, but are largely unaffected by chemical weathering. Bedrock in the study area is composed of igneous rocks, which are formed when magma (liquid rock material) cools below the earth's surface or when lava cools above ground. The soil is composed of loose pumice, decomposed granite, Bishop tuff (rock formed from an ancient volcano), and other volcanic sources.

Relic drainage features are short, rocky, and sandy, and appear to be the result of hydraulic changes to the existing landscape when there was an abundance of water. During the last 100 years, biological diversity has been altered from historical levels primarily through water diversions, lack of available nutrients, and fire suppression.

Climate in the study area is the result of Mediterranean, Basin, and Range type influences, consisting of dry, hot summers with occasional afternoon thundershowers and cool, moist winters. The eastern Sierra's steep slope strongly influences temperature and precipitation patterns, which can vary greatly over short distances. In general, temperature decreases and precipitation increases with an increase in elevation.

Table 3.1 presents endangered and threatened species that may occur in the project area, as determined by the U.S. Fish and Wildlife Service (May 7, 2003, see Appendix H). Of the species on the list, three were classified as "endangered" and one was classified as "threatened." In addition, the yellow-billed cuckoo is listed as a

"candidate" species. Table 3.1 depicts the species mentioned above. The list contains four birds and one fish classified as "endangered," "threatened," or "candidate."

Table 3.1 Special-Status Species

COMMON NAME	SPECIES	STATUS
BIRDS		
Least Bell's vireo	*Vireo belli pusillus*	Endangered
Southwestern willow flycatcher	*Empidonax traillii extimus*	Endangered
Bald Eagle	*Haliaeetus leucocephalus*	Threatened
Yellow-billed cuckoo	*Coccyzus americanus*	Candidate
FISHES		
Owens Valley Tui Chub	*Gila bicolor snyderi*	Endangered

3.5.2 Impacts

The project would result in the permanent disturbance of approximately 87 hectares (215 acres) of previously undisturbed ground. Of the 87 hectares (215 acres), approximately 23.5 hectares (58 acres) of Shadscale/Sagebrush Scrub, 18.6 hectares (46 acres) of Pinyon/Jeffrey Woodland, and 27.5 hectares (68 acres) of Bitterbrush Scrub-dominated pumice flats would be affected. In addition, up to 17.4 hectares (43 acres) of Bitterbrush Scrub could be affected during the proposed construction of a frontage road connecting Crowley Lake Drive to Lower Rock Creek Road.

While the loss of habitat may result in the displacement of some wildlife species, it would not affect any listed special status species within the project limits. The habitat adjacent to the project area would adequately serve as refuge and cover for any wildlife displaced by the project. The project should have no serious consequences for local wildlife populations within the project limits.

The proposed project is not expected to adversely affect mule deer habitat. No fawning areas have been identified within the project limits.

3.5.3 Mitigation

Throughout the project, Caltrans Best Management Practices would be followed and implemented to ensure compliance with state and federal regulations. In addition to Best Management Practices, it is recommended that the design of the project's cut and fill slopes take into consideration the steepness of the slopes and other biological constraints, which could influence re-vegetation success on these dry desert slopes. Identified locations should be further evaluated and modified to ensure the best possible re-vegetation scenarios.

Caltrans standard Duff Provision would be applied to the proposed project area in efforts to mitigate temporary and permanent impacts to natural vegetation. Areas of disturbance would be kept to the minimal area necessary to construct the project. Areas of temporary disturbance would be re-planted using a combination of grass, shrub, and tree species native to the area. This would be spelled out in the contract special provisions and should be done in coordination between the Project Biologist and the District Landscape Architect.

Caltrans will implement Executive Order 13112 *Invasive Plant Species* by directing the construction contractor to follow certain procedures prior to and during the construction (clearing and grubbing) and re-vegetation phases of the project. Some of these procedures include but are not limited to requiring the contractor to obtain US Department of Agriculture "certified" weed free straw and seeds to prevent a localized exotic weed species introduction and/or outbreak within the project area. Other methods deemed highly successful in preventing the spread of invasive plants include washing and/or steam cleaning mud from tires and tracks of heavy equipment prior to their use.

3.6 Historic and Archaeological Preservation

3.6.1 Affected Environment

The nature of the proposed project and the involvement of a federal agency (the Federal Highway Administration) require compliance with Section 106 of the National Historic Preservation Act, as codified at 36 CFR § 800. Section 106 of the National Historic Preservation Act mandates federal agencies to consider the effects of their projects on historic properties (resources eligible or potentially eligible for the National Register of Historic Places). A Historic Property Survey Report was prepared to document cultural resources within the project study area. The Historic

Property Survey Report documents efforts to identify historic properties within the project area and seek concurrence between the Federal Highway Administration and the State Historic Preservation Officer regarding the National Register of Historic Places eligibility or ineligibility of identified resources.

Caltrans conducted cultural resource studies in the project area between 1999 and 2002. Archaeological field surveys were done in May and June 2001. Although most of the Area of Potential Effects was previously surveyed as part of the Transportation Enhancement Activities Project (Basgall and Richman 1998), the extent of this work was deemed inadequate for the purposes of the current project. Consequently, archaeological surveys of the previously surveyed lands and additional unsurveyed portions of the current project area were conducted. An additional survey was conducted in April 2002 because of concerns about utility relocation in the northern portion of the project. A supplemental archaeological survey report was completed in May 2002.

3.6.2 Impacts

Cultural resource studies have identified 32 archaeological sites within the Area of Potential Effects for the proposed project. There are no architectural resources or bridges within the Area of Potential Effects. The only resource that has been previously found eligible for the National Register of Historic Places is site CA-MNO-2433/H. Seventeen sites are located within the Area of Potential Effects, but lie outside the Area of Direct Impact. For this project, Caltrans considers these sites as eligible properties and modified the project to avoid any adverse effects to these potential historic properties pursuant to 36 CFR 800.5(b). The final determination will be made in future consultation with the State Historic Preservation Officer. After an evaluation of the remaining historic properties identified in the Area of Potential Effects, the following recommendations were made:

- **Archaeological sites eligible for the National Register of Historic Places under Criterion D[1]:** CA-MNO-2433/H, CA-MNO-3465, CA-MNO-3490

[1] *A cultural site that is determined to be eligible for the National Register of Historic Places under Criterion D has the potential to contribute important information about the pre-history and history of the region.*

- **Archaeological sites not eligible for the National Register of Historic Places:** CA-MNO-3463, CA-MNO-3464, CA-MNO-3467, CA-MNO-3468, CA-MNO-3470, CA-MNO-3471, CA-MNO-3472, CA-MNO-3474, CA-MNO-3478, , CA-MNO-3480, CA-MNO-3486, CA-MNO-3492

- **Archaeological sites considered eligible for the purpose of this project:** CA-MNO-2432, CA-MNO-3462, CA-MNO-3466, CA-MNO-3473, CA-MNO-3475, CA-MNO-3479, CA-MNO-3481, CA-MNO-3482, CA-MNO-3483, CA-MNO-3484, CA-MNO-3485, CA-MNO-3487, CA-MNO-3488/H, CA-MNO-3489, CA-MNO-3491, CA-MNO-3493, CA-INY-5939

- **The following sites are located outside of the Area of Potential Effects:** CA-MNO-584, CA-MNO-2431, CA-MNO-3461H, CA-MNO-3469, CA-MNO-3476, CA-MNO-3477/H, CA-MNO-1407, CA-MNO-5934, 26-3708

- **Properties eligible for the National Register of Historic Places:** Three historic properties are eligible for inclusion to the National Register of Historic Places based on criteria referenced in 36 CFR 63: CA-MNO-2433/H, CA-MNO-3465, and CA-MNO-3490. The main criterion by which prehistoric archaeological resources are considered eligible is based on whether the property can provide information of value in addressing important research issues in prehistory. There are also 17 unevaluated, potentially historic properties within the Area of Potential Effects, but outside the Area of Direct Impact. These archaeological sites would be considered to be historic properties for the purposes of this project only.

CA-MNO-2433/H

Although the northern boundaries of the site have not been defined, portions of site CA-MNO-2433/H are part of an extensive (170,000 square meters (1,829,865 square feet) or 17 hectares (42 acres)) and diverse prehistoric and early historic site located in the Pinyon Woodland along the Sherwin Grade. The site was originally recorded and tested in 1988 and revisited in 1996.

In the evaluated portions, this site contains at least nine rock rings, at least 10 discrete burn features that likely represent pinyon-processing refuse, at least 10 discrete lithic scatters that represent single-reduction flintknapping events, several bedrock milling

features, and a large assemblage of flaked stone from a range of different time periods.

The prehistoric archaeological deposits at CA-MNO-2433/H retain much of their integrity and have demonstrated the potential to contribute information about the prehistory of the area. Based on this research potential, the southwesterly portion of the site, as defined by the extent of the research and evaluation program, is eligible to the National Register of Historic Places under Criterion D.

The Sherwin Summit Rehabilitation Project would directly affect approximately 10 percent or 1.7 hectares (4.2 acres) (17,000 square meters (182,986 square feet)) of the site. The project would likely alter the characteristics that qualify the property for inclusion in the National Register of Historic Places in a manner that would diminish the integrity of the property. Therefore, the project may have an adverse effect on this historic property.

CA-MNO-3465

Prehistoric site CA-MNO-3465 consists of a sparse but expansive scatter of flakes and tools made from volcanic glass and a small assemblage of groundstone, covering an area of over 20,998 square meters (226,020 square feet) or 2.1 hectares (5.2 acres). The site was first described and recorded during the survey phase of this project.

CA-MNO-3465 is eligible for the National Register of Historic Places under Criterion D because the site possesses the types and quantities of artifacts that reflect patterns that contribute to our knowledge of stone tool technologies of eastern California.

The project would directly affect 3,600 square meters (38,750 square feet), or approximately 17 percent, of the site area. Due to the sparcity of artifacts and/or features identified in the Area of Direct Impact, the project may not adversely effect the qualities that contribute to the eligibility of the historic property.

CA-MNO-3490

Prehistoric site CA-MNO-3490, located in the Desert Scrub ecozone, was used as a habitation and logistic camp spanning an area of 33,750 square meters (363,282 square feet), or 3.4 hectares (8.3 acres). The site contains a substantial range and diversity of tools including projectile points, bifaces, flake tools, formed tools, handstones, millingstones, and ceramics. This diversity is much greater than any other site within the project area and speaks to the range of research questions that could

potentially be addressed with the assemblage. More important is the presence of at least two small rockshelters and what appears to be an early Holocene lithic scatter, though the former is not associated with the latter.

Future research at this site has the potential to contribute important information to address 1) stone tool technology and exchange; 2) early land use patterns and the origin of the intensive pinyon processing; and 3) past environmental reconstruction. Therefore, CA-MNO-3490 is eligible to the National Register of Historic Places under Criterion D on the basis that the site exhibits characteristics to address research questions considered important in regional research.

The project would directly affect 1,800 square meters (19,375 square feet) or approximately 5 percent of the site and likely alter the characteristics that qualify the property for inclusion in the National Register of Historic Places in a manner that would diminish the integrity of the property. Therefore, the project may have an adverse effect on prehistoric site CA-MNO-3490.

3.6.3 Mitigation

Avoidance is the preferred method of treating sites eligible for the National Register of Historic Places. However, because of the high number of cultural sites and the nature of the project, this does not seem possible in many instances. When possible, avoidance was implemented.

A Finding of Adverse Effect and Memorandum of Agreement, along with a Data Recovery Plan, are currently being prepared. These documents will state that the project would have an adverse effect on the following three sites: CA-MNO-2433/H, CA-MNO-3465, and CA-MNO-3490. The adverse effects to the sites would be mitigated by a data recovery program, establishment of Environmental Sensitive Areas around the remaining portions of the sites, and preparation of a technical report. Some minor project redesign to minimize impacts has occurred, but because of the location of the sites and the type of project, impacts were not completely avoidable. The Data Recovery Plan will be circulated to the Native American community, the Federal Highway Administration, and the State Historic Preservation Officer for review and comment before final environmental document approval.

As outlined in the Data Recovery Plan, additional cultural work would be necessary before construction. If buried cultural materials are discovered during construction,

Caltrans policy states that work must halt in the vicinity of the find until a qualified archaeologist can assess them. In addition:

- Recorded portions of the site outside the Area of Direct Impact would be designated as Environmental Sensitive Areas during construction.
- Archaeological monitoring would also be performed during construction as insurance against unanticipated effects upon the site.

If human remains are unearthed during construction, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98.

3.7 Paleontology

A record search of the June 1, 2000 paleontological database showed only low sensitivity for the limits of this project. Therefore, no impacts are anticipated.

3.8 Air Quality

3.8.1 Affected Environment

The Clean Air Act as amended in 1990 is the federal law that governs air quality. Its counterpart in California is the California Clean Air Act of 1988. Under these laws, standards are set for the quantity of pollutants that can be in the air, such as carbon monoxide, nitrous oxide, ozone, and particulate matter. In the project area, the Great Basin Unified Air Pollution Control District administers air quality regulations developed at the federal, state, and local levels.

Data obtained from the Great Basin Unified Air Pollution Control District indicate the overall air quality in this region is very good. Inyo County is a non-attainment area for particulate matter under 10 micrometers in diameter (PM_{10}). This means that PM_{10} is the only pollutant that exceeds federal and state air quality standards within Owens Valley. The primary source of PM_{10} is dust from areas along the Owens River and/or from Owens Lake (dry) during wind periods that exceed 16 kilometers per hour (10 miles per hour). Particulate matter from wood stove smoke can also contribute to the problem during winter months. The Great Basin Air Pollution Control District has

determined the area's transportation system is not a major contributor to the PM_{10} issue.

3.8.2 Impacts

No long-term impacts to air quality are expected at the regional or project level. According the Transportation Conformity Rule (40 CFR Section 93.126) rehabilitation projects such as this project may be implemented without a conforming transportation plan and Transportation Improvement Plan. Further air quality studies are, therefore, not required.

With the exception of PM_{10}, the area within Inyo County is in full conformity with both state and federal air quality standards. The Great Basin Air Pollution Control District has prepared a plan to control the PM_{10} issues. Inyo County's Regional Transportation Plans, accompanied by an approved environmental impact report, lists the Sherwin Summit project as meeting all regional air quality standards. The Sherwin Summit project is included in the 2002 Federal State Transportation Improvement Program for Mono County.

The Caltrans "Microscale Screening Procedures for Carbon Monoxide" has been performed for this project indicating there is less than a 1 part per million increase in either the one-hour or eight-hour carbon monoxide concentrations throughout the 20-year life expectancy of the roadway at a distance equivalent to the right-of-way lines. With background levels estimated at 4 parts per million or less, carbon monoxide concentrations are well below state and federal standards. It has been shown that the small, less than 1 part per million increase, is caused by "normal" traffic growth and is not directly related to the roadway improvement itself. These results indicate that a full air study is not required for this project.

3.8.3 Mitigation

No mitigation measures would be necessary.

3.9 Noise and Hazardous Waste Sites, Aerially Deposited Lead

3.9.1 Affected Environment

The Build Alternative of this proposed project would have little or no impact to existing noise levels or hazardous waste sites.

Noise

The project would not increase noise levels in the area, and no sensitive receptors (such as homes, businesses, or parks) are located in the project limits.

Hazardous Waste

No hazardous waste sites are currently known to exist in the project study area. If hazardous waste were unexpectedly encountered during construction, the materials would be disposed of according to local, state, and federal laws and regulations.

Aerially Deposited Lead

A site inspection done on December 27, 2000 determined that an aerially deposited lead study is not warranted for this project. Hazardous levels of aerially deposited lead would not be found in the thin soil over the rock. High winds and snowy conditions prevent accumulation of hazardous levels of aerially deposited lead. However, precaution should be taken during construction to prevent or minimize exposure to potentially hazardous substances by using proper dust control measures.

3.9.2 Impacts

No impacts are expected

3.9.3 Mitigation

No mitigation measures would be necessary.

3.10 Visual

3.10.1 Affected Environment

The project area is a designated State Scenic Highway. One half of the project area is within the Inyo National Forest boundary. This route makes an impressive elevation change, starting at 785 meters (2,575 feet) and cresting the Sherwin Summit at 2,134

meters (7,000 feet) from which the grade gets its name. The steepness of the grade approaches 6 percent for 13 kilometers (8 miles.)

The route goes through two distinct landscape units visible from the highway corridor: the Volcanic Tablelands, with forested areas at the higher elevations, and the Rock Creek drainage.

The regional landscape consists of the topography, land cover, and manmade elements that set it apart from other regional landscapes. The visual character of a region's landscape features and the relationships between those features form the basis of the visual interpretation of the region.

Dominating the regional landscape, the rugged glacially carved Sierra Nevada Mountains rise practically from the edge of the highway, culminating in Mount Tom (4,161 meters/13,652 feet) and the massive granite escarpment of the Wheeler Crest (3,353 meters/11,000 feet). Across the valley to the east is the White Mountain range, home of the Ancient Bristlecone Forest and White Mountain peak (4,342 meters/14,246 feet), the third highest point in California.

U.S. Highway 395 climbs and winds its way between these two mountain ranges across an area known as the Volcanic Tablelands. The tablelands are part of a 1,502-square-kilometer (580-square-mile) area covered by a series of volcanic ash flows from the eruption of the Long Valley caldera more than 700,000 years ago. They are composed of several layers of salmon-colored pumice known as Bishop tuff. Over thousands of years, wind, rain and melting snow have eroded the softer pumice, carving steep gorges and exposing rock outcroppings. These tablelands form the northern border of the Owens Valley and slope down to the pastures of Round Valley at the southern end of the project limits.

3.10.2 Impacts

This project would have little impact on the visual quality of the surrounding regional view. The widening of the roadway may actually allow the motorist a clearer view of the distant mountain ranges, and improvement of standard shoulder widths would provide motorists a place to safely pull over and stop.

Much of the visual impact from this project would result from the disturbance and removal of the native vegetation of the tablelands that will occur during construction. Reestablishment of native sage scrub and grasses may take up to five years and for

native trees, up to 25 or more years. Measures to protect and preserve existing native vegetation would greatly enhance the visual quality after construction.

The project would result in the loss and degradation of rock outcroppings. The visual analysis of the area indicated that the rock outcroppings located from kilometer posts R8.85 to R9.01 (post miles R5.5 to R5.6) are a Designated Scenic Resource as defined in Section 21084(b) of the California Environmental Quality Act statutes. This determination is based on the rock outcroppings' contribution to the rural visual quality of the area and for their affect on the spatial characteristics of the corridor. The rock outcroppings and their Pinyon vegetation provide visual interest and are consistent with the look of a rural highway. Removal of these rock outcroppings would result in an adverse visual impact for the highway user. Measures to protect selected rock groupings in place on slopes and in median areas (where appropriate) would help blend the project site into the local landscape. The establishment and maintenance of the indigenous rock is an integral aspect of reinforcing the natural character of the tablelands.

Throughout the project limits, there a number of major cut and fill sections expected for the shoulder widening work and the curve corrections. Approximately 10% of the project area on the east side, and 6% of the project area on the west side of the northbound lanes in the Phase I section (kilometer posts R207.24/R208.4 (post miles R128.8/R129.5) in Inyo County to kilometer post 11.13 (post mile 6.92) in Mono County) may have major cuts and fills. The Phase II section (kilometer post 11.13 (post mile 6.92) to kilometer post R16.6 (post mile R10.3)) would have major cut and fills in 18% of the east side and 15% are of the west side of U.S. Highway 395.

While smaller cut and fill sections occur throughout the entire project, about 14 areas potentially create bigger impacts and require additional right-of-way of various sizes, depending on the slope chosen in each section.

- Kilometer post 0.95 (post mile 0.59): cut section, about 30 meters (98 feet) outside the current right-of-way for a length of about 274 meters (900 feet) on the east side of the northbound lanes with a 4:1 slope.
- Kilometer post 3.43 (post mile 2.13): at the east side of the northbound lanes, a fill section requires area of about 31 meters (102 feet) outside the current right-of-way with a length of approximately 43 meters (141 feet) for a 4:1 slope.
- Kilometer post 5.1 (post mile 3.16): a fill section is required on the east side of the northbound lanes creating a need for additional right-of-way of various widths

extending a maximum of 61 meters (200 feet) outside the existing right-of-way of a length of approximately 487 meters (1,598 feet).

- Between kilometer posts 5.8 and 7.29 (post miles 3.6 and 4.53): two cut and one fill areas have been identified on the east side of the northbound lanes. The largest area is located around kilometer post 6.45 (post mile 4.01), extending approximately 85 meters (279 feet) outside the existing right-of-way, for a length of approximately 425 meters (1,394 feet). The other two areas are substantially smaller.
- Kilometer post 9.11 (post mile 5.66): two cut sections require additional right-of-way on the east side of the northbound lanes, extending approximately 39 meters (128 feet) outside of the existing right-of-way, for a length of about 200 meters (656 feet).
- Kilometer post 10.06 (post mile 6.25): a small area of approximately 36 meters (118 feet) outside the right-of-way, extending for about 122 meters (400 feet) for a cut section.
- Kilometer post 10.9 (post mile 6.78): at the beginning of Phase II and the undivided section of this project, a number of wide predominately cut sections would be necessary on the east and west side of U.S. Highway 395, ranging from a few meters to over 150 meters (492 feet) outside the existing right-of-way. The biggest sections are on the west side at approximately kilometer post 11.27 (post mile 7.0), on the east side from kilometer posts 11.43 to 11.9 (post miles 7.1 to 7.4), at kilometer posts 13.5 and 13.8 (post miles 8.4 and 8.6) on the east side, at kilometer post 14.6 (post mile 9.1) on the east side and kilometer post 15.1 (post mile 9.4) on the west side. The extent of the cut and fill sections mentioned were described for the worst case scenario, the 4:1 slopes.

The northern section of the proposed frontage road would be located in generally flat terrain connecting to Rock Creek Road. The terrain at the southern limits where a connection with Lower Rock Creek Road would be created is very steep, and the design would, where possible, minimize the cut and fill sections in this area.

3.10.3 Mitigation

The altering of any landform either by cuts or fills has the potential to create permanent visual impacts. Much of the existing unvegetated scars were created by the original road construction. Because this new widening project would closely follow the existing alignment with some centerline shift to correct curves and sight distances,

it would visually intrude further into the natural hillsides and gorges. Measures to blend the alterations with existing topography would help to restore the scenic quality. This may involve the construction of walls to limit the impact of fill slopes or to reduce the size of cuts. Impacts can be minimized in some areas by creating 2:1 or 3:1 slopes instead of the standard 4:1 slopes. In areas where the slopes would be greater than 4:1, installation of guardrail might be required.

To maintain these visual quality elements and to decrease the amount of negative visual impact caused by the project, the following actions are recommended:

1. Program and implement a separate project to replant native trees and shrubs to improve and restore visual quality in the project area. The project shall include a combination of seeding and container planting of native vegetation. A minimum 3-year plant establishment period would be included to assure the success of the revegetation. Replacement of affected trees and shrubs with native plant species shall be strategically located to blend with and enhance the native plant communities.

2. When retaining walls are used, height should be minimized. Consideration should be given to the selection of retaining wall types, materials, colors, textures and forms to blend with the adjacent natural landscape components (soil, vegetation, and rock).

3. Cut and fill slopes would be contour-graded to a non-uniform profile to blend with existing adjacent slopes. Slope grades would be constructed to facilitate planting, and provide erosion control and ease of maintenance. Increased slope rounding at the top and bottom of cuts and fills, along with liberal slope variances, would create more natural connections to existing grades. Appearance of contour grading and slope rounding shall be determined by or approved in cooperation with a Caltrans Landscape Architecture representative.

4. Grade slopes to leave natural rock outcroppings in place. “Varnish” treatment of newly exposed rock outcroppings to make them look weathered to blend with adjacent outcroppings. Appearance of varnished rock shall be determined by or approved in cooperation with a Caltrans Landscape Architecture representative.

5. Daylight new and existing cuts where it will open views to improve visual quality.

6. Consider the use of metal-beam guardrail or other safety methods to preserve selected mature trees and rock outcroppings in lieu of recovery zone areas.

7. Collect and store topsoil/duff for placement on disturbed areas before replanting.

With the implementation of the stated mitigation methods, the visual impacts of this project can be reduced and would not result in substantial changes in overall visual quality.

3.11 Geology

3.11.1 Affected Environment

The road cut, the *Big Pumice Cut*, is documented in several publications as a classic example of "superposition," meaning the oldest layer of rock is on the bottom and the youngest on the top. Therefore, it is one of the best chronological benchmarks for old glaciers in North America. It is used by educators as a college field trip stop, with the road cut described as a feature that helps an investigator determine the timing of a geological event prior to any written history. This geological feature is located on the east side of U.S. Highway 395 between kilometer posts 14.5 and 14.8 (post miles 9.02 to 9.22) (see Figure 3-1).

When U.S. Highway 395 was designed, the purpose was to provide a grade gentle enough for truck traffic. The design reduced the amount of cut and fill by following the meander of Rock Creek for part of the climb to the top of the Long Valley caldera plateau. The "road cut" cuts across a glacial till deposit (rock materials left by a melting glacier) overlain by volcanic debris, which is in turn overlain by more glacial till deposits.

The road cut has a relatively high slope angle. The soil is well graded, with rock fragments ranging from silt-size to half-meter (20-inch) boulders. Boulders and large cobbles are consistently found in the glacial till deposit.

3.11.2 Impacts

The hill structure appears to be consistent in form to at least 30 meters (100 feet) perpendicular to the top of the cut face. Laying the slope back to a shallower angle would possibly produce several benefits in addition to the design benefit. A new cut face would reveal more of the detail of the events surrounding the explosion that left these deposits on the glacial till. A shallower cut face would also reduce the erosion and preserve the detail exposed for a much longer time.

Tests show the same geological features would be visible even if an angled cut as far back as 160 meters (525 feet) from the centerline of the current roadway to the top of the *Pumice Cut* is necessary. Because the current cut is weathered, this would result in better visibility of the contact between the Sherwin Till and the Bishop Tuff.

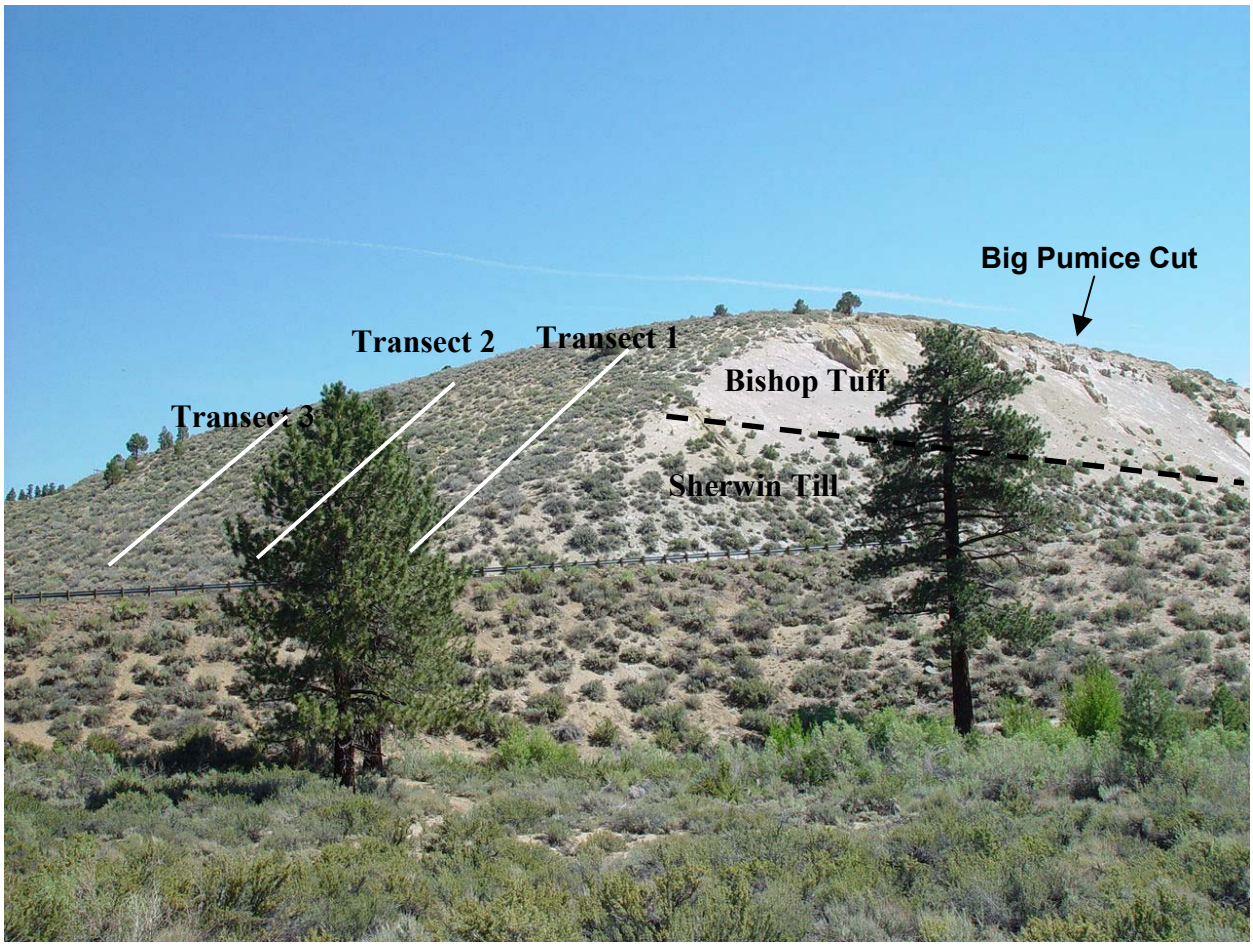

Figure 3-1 shows the location of the geophysical survey transects at kilometer post 14.6 (post mile 9.1). Transects 1, 2 and 3 are located at 14, 50 and 95 meters (46 feet, 164 feet and 312 feet) from the edge of the cut, respectively. The dashed line denotes the approximate location of contact between Sherwin Till and Bishop Tuff.

Note: Survey transects not drawn to scale.

Figure 3-1 Big Pumice Cut

3.11.3 Mitigation

No mitigation measures would be necessary.

Chapter 4 Cumulative Impacts

Cumulative impacts can result from individually minor, but collectively substantial, effects of various projects taking place over a period of time. No other projects are currently planned in the immediate vicinity of this project.

Because the proposed project is a rehabilitation of an existing roadway, it is not expected to substantially accelerate or induce growth in the region or cause cumulative impacts. Local planning and land use would not be affected by the construction of the frontage road or the closure of Lower Rock Creek Road.

Chapter 5 List of Preparers

This Environmental Assessment/Initial Study was prepared by the Central Region of the California Department of Transportation (Caltrans). The following Caltrans staff prepared this Environmental Assessment/Initial Study:

Kathryn Boltz, Research Writer. B.A. Sociology, Ohio State University; 16 years writing experience. Contribution: Edited Environmental Assessment/Initial Study.

Truman Denio, Hydraulics Engineer, Design Engineer P.E.. B.S. in Civil Engineering, University of California, Davis; Registered Civil Engineer in 1982; 24 years experience in civil engineering public works projects including 13 years Hydrology/Hydraulics. Contribution: Hydraulics Study.

Mike Donahue, Chief Southern Sierra Environmental Branch, Senior Environmental Planner. B.A., Geography, California State University, Fresno; 29 years urban and environmental planning experience. Contribution: Environmental Manager.

Andy Gillem, Environmental Planner, BA in Environmental Studies, Sonoma State University. Contribution: Air, Noise Water Study

Brad Mettam, Project Manager. 15 years experience in transportation and land use planning. Contribution: Overall project coordinator.

R. Steve Miller, Landscape Architect. Bachelors of Landscape Architecture, 1975 University of Idaho in Moscow, Idaho. Registered to practice in California since 1987. Contribution: Visual Assessment.

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Lora Rischer, Associate Right-of-Way Agent. B.S., Sports Medicine, Sacramento State University. Contribution: Draft Relocation Impact Report.

Jane Sellers, Research Writer. B.A., Journalism, California State University, Fresno; 15 years writing experience. Contribution: Edited Environmental Assessment/Initial Study.

Nick Sprague, Design Engineer. B.S., Environmental Resources Engineering, Humboldt State University, Arcata, California; 3 years transportation engineering experience. Contribution: Project Engineer.

Denise Thomas, Associate Environmental Planner. M.A., California State University, Chico; B.A., Anthropology, California State University, Chico; 7 years California and Great Basin archaeology experience. Contribution: Historic Property Survey Report.

Juergen Vespermann, Associate Environmental Planner. Civil Engineering Degree, Fachhochschule Muenster, Germany; 14 years transportation planning/environmental planning experience. Contribution: Wrote Environmental Assessment/Initial Study and coordinated the environmental process for the project.

Chapter 6 References

Historic Property Survey Report, Sherwin Summit Rehabilitation Project, December 2002

Natural Environment Study, Sherwin Summit Rehab project, Caltrans, April 2003

Air, Noise, Water, Hazardous Waste Study, Sherwin Summit, July 2000

Floodplain Evaluation Report and Location Hydraulics Study, March 7, 2000

Visual Impact Assessment, U.S. Highway 395, Sherwin Summit Rehabilitation Project, June 2003

Department of Transportation, Division of Engineering Services, Geotechnical Services, Geophysical Investigation, Big Pumice Cut, U.S. Highway 395, March 26, 2003

Department of Transportation, Ken Doran, Engineering Geologist, Hazardous Waste Branch, Caltrans District 6, April 4, 2001

Value Analysis Report, U.S. 395 Sherwin Summit Rehabilitation, Tom's Place, California, December 2002

Appendix A Environmental Checklist

One of the purposes of the California Environmental Quality Act is to inform state, regional, and local governmental decision-makers and the public of impacts of proposed activities, and in particular, those impacts that are either significant or potentially significant. Determining and documenting whether an activity may have a significant effect on the environment plays a critical role in the California Environmental Quality Act process. The following checklist is a device that was used to identify and evaluate any potential impacts from the proposed activity on physical, biological, social and economic resources. This checklist is not a National Environmental Policy Act requirement.

Differences exist in the way impacts are addressed in California Environmental Quality Act environmental documents as compared to National Environmental Policy Act environmental documents. While California Environmental Quality Act requires that environmental documents state a determination of significant or potentially significant impacts, as has been done in the following checklist, the National Environmental Policy Act does not. It can be seen that having to address significant or potentially significant impacts in joint California Environmental Quality Act and National Environmental Policy Act environmental documents can be confusing, especially in those instances where the two laws and implementing regulations have different thresholds of significance.

Under the National Environmental Policy Act, the degree to which a resource is impacted is only used to determine whether a National Environmental Policy Act Environmental Impact Statement or some lower level of documentation would be required. Under National Environmental Policy Act, once the federal agency has determined the magnitude of the project's impacts and the level of environmental documentation required, it is the magnitude of the impact that is evaluated in the environmental document and no judgment of its degree of significance is deemed important in the document text. For the purpose of the impact discussion in this document, determination of significant or potentially significant impacts is made only in the context of the California Environmental Quality Act.

Based on the results of the technical studies, it has been determined that the appropriate level of California Environmental Quality Act environmental documentation for this project is an Initial Study/Negative Declaration.

	CEQA			
	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
AESTHETICS - Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	X	☐	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	X	☐	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	X	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	X
AGRICULTURE RESOURCES - In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	X
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	X
AIR QUALITY - Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	X
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	X

	CEQA			
	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	X
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	X
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	X
BIOLOGICAL RESOURCES - Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	X
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	X	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	X
COMMUNITY RESOURCES - Would the project:				
a) Cause disruption of orderly planned development?	☐	☐	☐	X

	CEQA			
	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
b) Be inconsistent with a Coastal Zone Management Plan?				X
c) Affect life-styles, or neighborhood character or stability?				X
d) Physically divide an established community?				X
e) Affect minority, low-income, elderly, disabled, transit-dependent, or other specific interest group?				
f) Affect employment, industry, or commerce, or require the displacement of businesses or farms?				X
g) Affect property values or the local tax base?				X
h) Affect any community facilities (including medical, educational, scientific, or religious institutions, ceremonial sites or sacred shrines?				X
i) Result in alterations to waterborne, rail, or air traffic?				X
j) Support large commercial or residential development?				X
k) Affect wild or scenic rivers or natural landmarks?				X
l) Result in substantial impacts associated with construction activities (e.g., noise, dust, temporary drainage, traffic detours and temporary access, etc.)?				X
CULTURAL RESOURCES - Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?		X		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X
d) Disturb any human remains, including those interred outside of formal cemeteries?				X
GEOLOGY AND SOILS - Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				X

	CEQA			
	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	X
ii) Strong seismic ground shaking?	☐	☐	☐	X
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	X
iv) Landslides?	☐	☐	☐	X
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	X
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	X
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	X
HAZARDS AND HAZARDOUS MATERIALS - Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	X
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	X
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the	☐	☐	☐	X

	CEQA			
	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
project result in a safety hazard for people residing or working in the project area?				
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒
HYDROLOGY AND WATER QUALITY - Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☒
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	☒
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f) Otherwise substantially degrade water quality?	☐	☐	☐	☒
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒

	CEQA			
	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	X
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	X
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	X
LAND USE AND PLANNING - Would the project:				
a) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	X
b) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	X
MINERAL RESOURCES - Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	X
NOISE - Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	X
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	X
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	X
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the	☐	☐	☐	X

	CEQA			
	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
project expose people residing or working in the project area to excessive noise levels?				
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
POPULATION AND HOUSING - Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
PUBLIC SERVICES -				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒
RECREATION -				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational	☐	☐	☐	☒

	CEQA			
	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
facilities which might have an adverse physical effect on the environment?				
TRANSPORTATION/TRAFFIC - Would the project:				
a) Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☐	☒
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Result in inadequate parking capacity?	☐	☐	☐	☒
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒
UTILITIES AND SERVICE SYSTEMS - Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has	☐	☐	☐	☒

	CEQA			
	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	X
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	X

MANDATORY FINDINGS OF SIGNIFICANCE -

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	X
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	X
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	X

Appendix B Coordination and Consultation

Agency Participation

The following agencies and organizations were consulted and coordinated with during the project development:

U. S. Fish and Wildlife Service. Caltrans requested a list of endangered and threatened species that might be present in the project area. The list was received on May 7, 2003 (see Appendix H).

California Department of Fish and Game. A 1601 Streambed Alteration Agreement would be needed for construction activities around Rock Creek to ensure maximum protection for riparian habitats affected by the proposed project.

U.S. Army Corps of Engineers. Under the Clean Water Act, the impacts of this project to jurisdictional waters of the U.S. would be covered under a Nationwide Permit 14 (Linear Transportation Crossing) and 33 (Temporary Construction, Access, Dewatering) under Section 404.

Regional Water Quality Control Board. The Regional Water Quality Control Board has jurisdiction over construction activities adjacent to the waterways under the Clean Water Act (401).

Native American Involvement. Native American consultation efforts included correspondence with Debbie Pilas-Treadway (California Native American Heritage Commission), Monty Bengochia and Gerald Kane (Bishop Paiute Tribe), and Jerry Andrews (Kuzedika Paiute Tribe).

Coordination with the Native American community included contacting the Native American Heritage Commission and requesting a search of the sacred lands files. The commission did not find any sacred sites, native plant gathering locations, traditional cultural properties, or any other special resources that may be affected by the proposed project. A list of Native American individuals and groups that might have an interest in the proposed project also was requested from the Native American Heritage Commission.

The Bishop Paiute Tribe expressed an interest in the Phase II investigations and wished to have Native American monitors involved during excavation. The tribe designated Gerald Kane, Tribal Council Member, as the Native American monitor. Mr. Kane participated daily in the excavations for the duration of this portion of the project.

The Native American community has not expressed any comments or concerns regarding the project to date.

State Historic Preservation Officer. Concurrence pursuant to the National Historic Preservation Act that cultural studies were adequate and that archaeological sites CA-MNO-2433/H, CA-MNO-3465, and CA-MNO-3490 were determined to be eligible for the National Register of Historic Places is contained in Appendix G.

Bureau of Land Management. Formal and informal consultation with the Bureau of Land Management has been initiated and maintained through all stages of the cultural resources identification/evaluation effort.

U.S. Forest Service, Inyo National Forest. Consultation with Linda Reynolds, Inyo National Forest Archaeologist, has been ongoing throughout all stages of the project.

Historical Society of the Upper Mojave Desert. No historical societies are known to exist in the general vicinity of the project area, but the directors of the Historical Society of the Upper Mojave Desert in Bakersfield have been contacted regarding the proposed project. There has been no response to this request to date.

Laws Railroad Museum and Historical Site. Barbara Moss, curator of Laws Railroad Museum and Historical Site, was contacted on September 18, 2001 concerning possible historic resources in the project area.

Public Participation and Information

Caltrans participated in three public meetings to discuss the Sherwin Summit Rehabilitation project. Meetings were held on February 13, 2002 at Paradise Fire Station; February 27, 2002 at the Crowley Lake Community Center and April 29, 2002 at Swall Meadows Fire Station.

Most of the comments from participants at these meetings were in regard to the proposed frontage road connecting Old Sherwin Grade Road (also referred to as Lower Rock Creek Road) and Rock Creek Road, and removing the intersection of the former. Overall, the response from the meeting attendees was largely positive toward the project. Several noted that they would like improvements to the existing intersection at Tom's Place.

Appendix C Title VI Policy Statement

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
1120 N STREET
P. O. BOX 942873
SACRAMENTO, CA 94273-0001
PHONE (916) 654-5267
FAX (916) 654-6608

July 26, 2000

TITLE VI
POLICY STATEMENT

The California State Department of Transportation under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, sex and national origin be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

Jeff Morales

JEFF MORALES
Director

Appendix D Special Provisions

Lead Provisions

Studies conducted in March 2001 to determine if the soil in the project area was contaminated with aerially deposited lead did not reveal any levels above allowable standards. However, before any excavation or other disturbance of the soil in the project boundaries, a project-specific Health and Safety Plan must be developed to prevent or minimize employees' exposure to the potential lead hazard.

The required elements of the site safety plan are contained in Title 8, California Code of Regulations (CCR), Section 5192(b) (4) (B) and the Occupational Safety and Health Guidance Manual published by the National Institute of Occupational Safety and Health, Occupational Safety and Health Administration and U.S. Environmental Protection Agency.

Before performing any work in areas containing lead, personnel who have no prior training or are not current in their training status, including state personnel, shall complete a safety-training program that meets the requirements of Title 8, CCR Section 1532.1.

Appendix E Floodplain Evaluation Summary Report

Floodplain Evaluation Report Summary

Dist.: **09** Co.: **INYO** Rte.: **395** K.P.: **207.3/208.4; PM 128.8/129.5**
MONO **395** **0.0/16.6** **0.0/10.3**

Project No.: **09-269000** Bridge No.: **NA**

Limits: **In Inyo and Mono County on Rte 395 near Tom's Place, from 1.13 km (0.7mile) south of the Mono County Line to Rock Creek Road.**

Floodplain Description: **Rock Creek and ephemeral drainage courses.**

	Yes	No
1) Is the proposed action a longitudinal encroachment of the base floodplain?		X
2) Are the risks associated with the implementation of the proposed action significant?		X
3) Will the proposed action support probable incompatible floodplain development?		X
4) Are there any significant impacts on the natural and beneficial floodplain values?		
5) Routine construction procedures are required to minimize impacts on the floodplain. Are there any special mitigation measures necessary to minimize impacts or restore and preserve natural and beneficial floodplain values? If yes, then explain.		
6) Does the proposed action constitute a significant floodplain encroachment as defined in 23 CFR, Section 650.105(q).		X
7) Are Location Hydraulic Studies that document the above answers on file? If not, explain.	X	

PREPARED BY:

Truman P. Davis — Signature- District Hydraulics Engineer — 3/7/00 Date

Mike Donahue — Signature- District Environmental Branch Chief — 6/13/00 Date

Craig A Hoist — Signature- Project Engineer — 3/7/00 Date

I CONCUR:

Signature- FHWA — 6/22/00 Date

Appendix F Location Hydraulics Study

CALIFORNIA DEPARTMENT OF TRANSPORTATION

DISTRICT 9
March 7, 2000

Floodplain Evaluation Report & Location Hydraulics Study

Project Proposal

The Department of Transportation, CALTRANS-District 9 is proposing to improve the existing four lane Route 395, from about 1.13 km (0.7 mi.) south of the Inyo/Mono County line to the intersection of Rock Creek Road. In the divided four lane highway section from Inyo KP 207.3 (PM 128.8) to Mono KP 11.3 (PM 7.0) the proposed project will widen the shoulders of the northbound lanes to 3.0 m outside and 1.5 m inside. In the all-paved four lane highway section, from Mono KP 11.3 (PM 7.0) to Mono 16.6 (PM 10.3), the median will be increased to 4.3 m. and the outside shoulders widened to 3.0 m.. The project also includes construction of a new frontage road from Lower Rock Creek to Rock Creek Road. Drainage culverts will be extended to accommodate the widening.

Hydrological Information

The project is located at elevations ranging from 1430m (4700ft.) to 2160m (7100 ft.). The average annual precipitation in this area ranges from 250mm to 380 mm (10 to 15 inches) occurring as snowfall and rainfall.

The project is almost entirely surrounded by public land managed by the U.S. Forest Service. There is some private land and residential development in the Tom's Place area at the very north (west) end of the project.

Rock Creek is a perennial stream that flows under the highway at about KP 14.2 (PM 9.2). The existing drainage structure is a 5' X 5' reinforced concrete box culvert. The capacity of this culvert is about 8.5 cms (300 cfs). The drainage basin above the highway at this point is about 44 sq. miles. The Rock Creek Drainage basin extends up to over 4,000 m (13,000 ft.). The estimated 100 year flow for Rock Creek at this location is less than 8.5 cms (300 cfs.), considering an overflow diversion located about a mile upstream that diverts flow toward the Crooked Creek drainage.

The other drainage culverts receive flow from minor drainage basins and do not flow year around.

New drainage facilities installed for the new frontage road will be designed to convey the estimated 100 year flows.

The proposed action will not have the affect of raising the 100 year floodplain at the drainage crossings.

REGISTERED CIVIL ENGINEER

Prepared by : **Truman P. Denio**
Caltrans-District 9
District Hydraulics Engineer

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Appendix G SHPO Concurrence Letters, June/July 2003

STATE OF CALIFORNIA – THE RESOURCES AGENCY GRAY DAVIS, *Governor*

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
P.O. BOX 942896
SACRAMENTO, CA 94296-0001
(916) 653-6624 Fax: (916) 653-9824
calshpo@ohp.parks.ca.gov
www.ohp.cal-parks.ca.gov

30 May 2003

In Reply Refer To
FHWA030206A

Gary N. Hamby
Division Administrator
California Division
Federal Highway Administration
980 Ninth Street, Suite 400
Sacramento, California 95814-2724

RE: HDA-CA, FILE NO. 09-INY-395, KP 207.28/208.40, 09-MNO-395, KP 0.0/16.58, SHERWIN SUMMIT REHABILITATION, 09-269000, DOCUMENT NO. P 43329 [SECTION 106 CONSULTATION ON THE REHABILITATION OF UNITED STATES HIGHWAY 395, INYO AND MONO COUNTIES]

Dear Mr. Hamby,

This letter is a response to your submission of the December 2002 *Historic Property Survey Report, Sherwin Summit Rehabilitation Project, Inyo and Mono Counties, California* (2 volumes) (HPSR). Your request and my comments here are made pursuant to 36 CFR Part 800, the regulations that implement Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. 470f), as amended.

You request in your letter of 3 February 2003 that I concur that the subject undertaking's area of potential effects (APE) is adequately defined, that the HPSR and its attendant documents are adequate and satisfy the requirements of the National Historic Preservation Act and 36 CFR 800, and that I concur with the Federal Highway Administration's (FHWA) National Register of Historic Places (National Register) determinations for thirty-two archaeological sites.

On the basis of my review of the HPSR, I concur that the FHWA's effort to determine and document the subject undertaking's APE is adequate pursuant to 36 CFR § 800.4(a)(1). I understand the APE to be the "Area of Potential Effects" as shown on Figures 3a–3aa of the HPSR (16 January 2003 *Area of Potential Effects* map)

I concur further that the FHWA's efforts to identify historic properties in the undertaking's APE, pursuant to 36 CFR § 800.4(b), are adequate.

I concur with the FHWA's determinations that

CA-Mno-3464	**CA-Mno-3467**	**CA-Mno-3468**
CA-Mno-3470	**CA-Mno-3471**	**CA-Mno-3472**
CA-Mno-3474	**CA-Mno-3478**	**CA-Mno-3480**
CA-Mno-3486	**CA-Mno-3492**	

are not eligible for inclusion in the National Register.

I concur with the FHWA's determinations that

CA-Mno-2433/H **CA-Mno-3465** **CA-Mno-3490**

are eligible for inclusion in the National Register under Criterion D.

I concur in the FHWA's decision, for the purpose of our consultation on the present undertaking, to treat archaeological sites CA-Mno-2432, CA-Mno-3462, CA-Mno-3466, CA-Mno-3473, CA-Mno-3475, CA-Mno-3479, CA-Mno-3481, CA-Mno-3482, CA-Mno-3483, CA-Mno-3484, CA-Mno-3485, CA-Mno-3487, CA-Mno-3488/H, CA-Mno-3489, CA-Mno-3491, CA-Mno-3493, and CA-Iny-5939 as though they are eligible for inclusion in the National Register.

I am presently unable to concur with the FHWA's determination that archaeological site CA-Mno-3463 is not eligible for inclusion in the National Register. The FHWA's presentation of the "heavy concentration of charcoal and fire-cracked-rock" (pp. 89–92 of the August 2002 *Phase II Archaeological Investigations for the Sherwin Summit Rehabilitation Project, U.S. Highway 395, Inyo and Mono Counties, California*) does not provide sufficient information to allow me to agree with the agency's conclusion that the concentration is not an archaeological feature. Please provide me with more thorough descriptions of the concentration, the constituent elements of the concentration, and the concentration's physical context. I would appreciate it if the agency would supplement these descriptions with the available graphic documentation of the deposit, and provide an interpretation of the deposit's depositional history.

Please direct any questions or concerns that you may have to Project Review Unit archaeologist Mike McGuirt at 916.653.8920 or at mmcguirt@ohp.parks.ca.gov.

Sincerely,

Dr. Knox Mellon
State Historic Preservation Officer

WKM:mdm

STATE OF CALIFORNIA – THE RESOURCES AGENCY GRAY
DAVIS, *Governor*

OFFICE OF HISTORIC PRESERVATION

DEPARTMENT OF PARKS AND RECREATION

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2 July 2003

In Reply Refer To
FHWA030206A

Gary N. Hamby
Division Administrator
California Division
Federal Highway Administration
980 Ninth Street, Suite 400
Sacramento, California 95814-2724

RE: HDA-CA, FILE NO. 09-INY-395, KP 207.28/208.40, 09-MNO-395, KP 0.0/16.58, SHERWIN SUMMIT REHABILITATION, 09-269000, DOCUMENT NO. P 43329 [FURTHER SECTION 106 CONSULTATION ON THE REHABILITATION OF UNITED STATES HIGHWAY 395, INYO AND MONO COUNTIES]

Dear Mr. Hamby,

This letter responds to a 19 June 2003 submission from Denise Thomas, California Department of Transportation (Caltrans) Central California Cultural Resources Branch Associate Environmental Planner, Archaeology, on behalf of the Federal Highway Administration (FHWA), of the additional information that I requested from your agency on 30 May 2003. Thank you for facilitating the submission of this material.

I am now able to concur with the FHWA's determination that

CA-Mno-3463

is *not* eligible for inclusion in the National Register of Historic Places.

Please direct any questions or concerns that you may have to Project Review Unit archaeologist Mike McGuirt at 916.653.8920 or at mmcguirt@ohp.parks.ca.gov.

Sincerely,

Dr. Knox Mellon
State Historic Preservation Officer

WKM:mdm

Appendix H U.S. Fish and Wildlife Species List

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ventura Fish and Wildlife Office
2493 Portola Road, Suite B
Ventura, California 93003

In Reply, Refer To: PAS 440.470.570

May 7, 2003

Craig Olofson, Project Biologist
California Department of Transportation
District 9
500 South Main Street
Bishop, California 93514

Subject: Species List for PM R10.3 to 128.8, U.S. Highway 395, Inyo and Mono Counties, California

Dear Mr. Olofson:

We are responding to your request, dated April 16, 2003, and received in our office via facsimile on April 16, 2003, for a list of endangered and threatened species that may occur in the vicinity of U.S. Highway 395 from postmile R128.8 in northern Inyo County to postmile R10.3 in southern Mono County. The project would include rehabilitating the pavement, widening shoulders, and flattening slopes along this stretch of highway. We understand the Federal Highway Administration (FHWA) is the lead Federal agency for the project, and that it would assume responsibility under section 7 of the Endangered Species Act of 1973, as amended (Act).

The enclosed list of species fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Act. The FHWA has the responsibility to review its proposed activities and determine whether any listed species may be affected. If the project is a construction project which may require an environmental impact statement[1]/ the FHWA has the responsibility to prepare a biological assessment to make a determination of the effects of the action on the listed species or critical habitat. If the FHWA determines that a listed species or critical habitat is likely to be adversely affected, it should request, in writing through our office, formal consultation pursuant to section 7 of the Act. Informal consultation may be used to exchange information and resolve conflicts with respect to threatened or endangered species or their critical habitat prior to a written request for formal consultation. During this review process, the FHWA may engage in

[1] "Construction project" means any major Federal action which significantly affects the quality of the human environmental designed primarily to result in the building of structures such as dams, buildings, roads, pipelines, and channels. This includes Federal actions such as permits, grants, licenses, or other forms of Federal authorizations or approval which may result in construction.

planning efforts but may not make any irreversible commitment of resources. Such a commitment could constitute a violation of section 7(d) of the Act.

Federal agencies are required to confer with the Service, pursuant to section 7(a)(4) of the Act, when an agency action is likely to jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of proposed critical habitat (50 CFR 402.10(a)). A request for formal conference must be in writing and should include the same information that would be provided for a request for formal consultation. Conference can also include discussions between the Service and the Federal agency to identify and resolve potential conflicts between an action and proposed species or proposed critical habitat early in the decision-making process. The Service recommends ways to minimize or avoid adverse effects of the action. These recommendations are advisory because the jeopardy prohibition of section 7(a)(2) of the Act does not apply until the species is listed or the proposed critical habitat is designated. The conference process fulfills the need to inform Federal agencies of possible steps that an agency might take at an early stage to adjust its actions to avoid jeopardizing a proposed species.

When a proposed species or proposed critical habitat may be affected by an action, the lead Federal agency may elect to enter into formal conference with the Service even if the action is not likely to jeopardize or result in the destruction or adverse modification of proposed critical habitat. If the proposed species is listed or the proposed critical habitat is designated after completion of the conference, the Federal agency may ask the Service, in writing, to confirm the conference as a formal consultation. If the Service reviews the proposed action and finds that no significant changes in the action as planned or in the information used during the conference have occurred, the Service will confirm the conference as a formal consultation on the project and no further section 7 consultation will be necessary. Use of the formal conference process in this manner can prevent delays in the event the proposed species is listed or the proposed critical habitat is designated during project development or implementations.

Only listed species receive protection under the Act. However, sensitive species should be considered in the planning process in the event they become listed or proposed for listing prior to project completion. We recommend that you review information in the California Department of Fish and Game's (CDFG) Natural Diversity Data Base. You can contact the CDFG at (916) 324-3812 for information on other sensitive species that may occur in this area. If you have any questions regarding this letter, please contact Robert McMorran of my staff at (805) 644-1766.

Sincerely,

Judy Hohman

Judy Hohman
Division Chief
Mojave/Great Basin Deserts

Enclosure

LISTED, PROPOSED, AND CANDIDATE SPECIES
WHICH MAY OCCUR IN THE VICINITY OF U.S. HIGHWAY 395
POSTMILE R128.8 IN INYO COUNTY TO POSTMILE R10.3
IN MONO COUNTY, CALIFORNIA

Birds		
Bald eagle	*Haliaeetus leucocephalus*	T
Southwestern willow flycatcher	*Empidonax traillii extimus*	E
Least Bell's vireo	*Vireo bellii pusillus*	E
Yellow-billed cuckoo	*Coccyzus americanus*	C
Fishes		
Owens tui chub	*Gila bicolor snyderi*	E

Key:
E - Endangered T - Threatened
C - Candidate species for which the Fish and Wildlife Service has on file sufficient information on the biological vulnerability and threats to support proposals to list as endangered or threatened.

Appendix I Draft Relocation Impact Report

State of California — Business, Transportation and Housing Agency

Draft Relocation Document

To : BRAD METTAM
Project Manager – Bishop

Date: May 1, 2003

File: Right of Way
09-Inyo/Mono395–PM
R128.8/R129.5 and R0.0/R10.3

Attention : Bart Dela Cruz, Design Manager – Bishop
Mike Donahue, Environ. Manager – Fresno
Juergen Vespermann, Environ. Planner – Fresno

Fed Aid No. N/A
Const. Fed Aid No. N/A

From : **Department of Transportation**
Right of Way, Central Region – Bishop

EA 09-269000
"Sherwin Summit Rehab"

Subject : Draft Relocation Impact Report for the project near Tom's Place from 0.6km north Gorge Road to Lower Rock Creek Road (KP R207.3/R208.4 and R0.0/R16.6): which proposes to improve an 17.7 kilometer (11 mile) segment of US 395 beginning at kilometer-post (KP) R207.28 in Northern Inyo County, and ending at KP R16.58 (PM R10.3) in Southern Mono County. A Statement of No Significant Impact in regard to Relocation Assistance.

1. Purpose of Relocation Impact Study

The purpose of this study, a Statement of No Significant Impact, is to provide the Department of Transportation, local agencies and the public with information as to what effect/impact this proposed highway improvement project would have on residential and non-residential occupants within the proposed project alternatives. Specifically, this report is concerned with potential problems that may be caused by the displacement of existing structures and their occupants by the various proposed alternatives and alignments of this project.

2. Alignments/Alternatives studied

A. Number of Alignments studied: 1

B. Description of Each Alignment Studied:

The project will widen the west shoulder to 1.5 meters (5 feet), and the east shoulder to 3.0 meters (10 feet) along a section of northbound U.S. 395 in Inyo County from KP R207.28 to R208.4 (PM R128.8 to R129.5) and in Mono County from KP R0.0 to R16.58 (PM R0.0 to R7.0). The median width will be increased to 4.2 meters (14 feet) and the east and west shoulders of the all-paved section will be widened to 3.0 meters (10 feet) from KP 11.27 to 15.9 (PM 7.0 to 9.9). No shoulder widening will occur between KP R15.9 to R16.58 (PM R9.9 to R10.3), but the Rock Creek Road/U.S. 395 intersection will be improved.

There are five curves within the project area which are not up to current design standards. The first curve is at KP R5.44 – KP R6.02 (PM R3.38 to PM R3.74) with a current radius of 548.6 meters (1800 feet). The second at KP 12.6 to KP 13.07 (PM 7.8 to PM 8.12) with a radius of 487.7 meters (1600 feet). The third at KP 14.24 to KP 14.56 (PM 8.85 to PM 9.05) with a radius of 426.7 meters (1400 feet). The fourth curve at KP 14.69 to KP 15.06 (PM 9.13 to PM 9.36) with a radius of 426.7 meters (1400 feet') is located at the geological formation, the *Pumice Cut*. This geological feature is located on the east side of US 395 between KP 14.5 and KP 14.8 (PM 9.02 to PM 9.22). The fifth location consists of a compound curve of a 457.2 meters (1500 feet) radius curve and a 1219 meters (4000 feet) radius curve at KP 15.19 to KP R15.45 (PM 9.44 to PM R9.60). The standard radius for a design speed of 110 km/h is 600 meters (1968.5 feet)

Improvements to existing chain-up areas will consist of enlarging three chain-up areas along the eastern shoulder of the northbound lanes at KP R3.8, R5.02 and R10.15 (PM R2.37, R3.12, and R6.31) in Mono County to accommodate up to fifty vehicles. Lighting installation will be included in the improvements at the chain-up areas located at KP R5.02, KP R3.8 (PM R3.12, PM R2.37), the vista pullout, and KP R10.15 (PM R6.31), if feasible. In addition, the north end of the vista point pullout could be extended as far north as KP R6.73 (PM R4.18) to facilitate use as an additional chain-up area. Also, Caltrans will potentially pave a median cross-over in this location.

The project also includes an extension of Crowley Lake Drive from Rock Creek Road connecting with Lower Rock Creek Road to the south. Activities that are incidental to these improvements consist of utility relocation of approximately forty power poles and two electroliers, extension/installation of culverts, and fence removal and relocation. The road will follow the existing paved road (Crowley Lake Drive) initially and will be designed with two 3.6 meter (12 feet) lanes and 2.4 meter (8 feet) shoulders and will be roughly 1,700 meters (one mile) long. The frontage road will be turned over to Mono County after completion.

3. Findings

A. The estimate prepared for this alternate, as summarized in the Right of Way Data Sheet, showed no relocation assistance was necessary on the alternates studied. Therefore, it has been determined, there is no significant impact to owners, tenants, businesses or persons in possession of real property to be acquired who would qualify for relocation benefits under the Uniform Relocation Assistance and Real Property Acquisition Act of 1970.

B. Any person (individual, family, corporation, partnership, or association) who moves from real property or moves personal property from real property as a result of the acquisition of real property, or who is required to relocate as a result of written notice from the California Department of Transportation from real property required for a transportation project, is eligible for "Relocation Assistance".

C. In the event that acquisition of property and relocation becomes necessary, all activities would then be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Relocation resources shall be available to those who are displaced without discrimination.

4. Uniform Acquisition and Relocation Policy

All displacees will be assigned to a relocation advisor who will see that all payments and benefits are fully utilized and that all regulations are observed. At the time of the first written offer to purchase owner-occupants are given a detailed explanation of Caltrans "Relocation Program and Services". Tenant-occupants of properties to be acquired are contacted soon after the first written offer to purchase and are also given a detailed explanation of Caltrans "Relocation Program and Services". In accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, Caltrans will provide relocation advisory assistance to any person, business, farm, or non-profit organization displaced as a result of the acquisition of real property for public use.

EA 09-269000

The undersigned has completed a Draft Relocation Impact Report for this project, EA 09-269000 "Sherwin Summit", and recommends it for approval:

Prepared by: Lora Rischer 5/1/03

LORA RISCHER date
Right of Way Agent
Central Region -Bishop

The undersigned have reviewed and approve this Draft Relocation Report:

Approved by: Nancy Escallier 5/1/03

NANCY ESCALLIER date
Field Office Chief, Right of Way
Central Region - Bishop

Approved by: Anthony McDowell 5/7/03

ANTHONY McDOWELL date
Office Chief, Right of Way
Central Region